





ENCYCLOPÆDIA AMERICANA.

A

POPULAR DICTIONARY

OF

ARTS, SCIENCES, LITERATURE, HISTORY, POLITICS AND
BIOGRAPHY,

BROUGHT DOWN TO THE PRESENT TIME;

INCLUDING

A COPIOUS COLLECTION OF ORIGINAL ARTICLES

IN

AMERICAN BIOGRAPHY;

ON

THE BASIS OF THE SEVENTH EDITION OF THE GERMAN

CONVERSATIONS-LEXICON.

EDITED BY

FRANCIS LIEBER,

ASSISTED BY

E. WIGGLESWORTH.

VOL. I.

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CAREY & LEA.

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1830.

EASTERN DISTRICT OF PENNSYLVANIA, to wit:

BE IT REMEMBERED, that on the tenth day of August, in the fifty-fourth year of the Independence of the United States of America, A. D. 1839, Carey, Lea & Carey, of the said district, have deposited in this office the title of a book, the right whereof they claim as proprietors, in the words following, to wit:

"Encyclopædia Americana. A Popular Dictionary of Arts, Sciences, Literature, History, Politics and Biography, brought down to the present Time; including a copious Collection of Original Articles in American Biography; on the Basis of the seventh Edition of the German Conversations-Lexicon. Edited by Francis Lieber, assisted by E. Wigglesworth."

In conformity to the act of the Congress of the United States, entitled, "An Act for the encouragement of learning, by securing the copies of maps, charts and books to the authors and proprietors of such copies, during the times therein mentioned;" and also to the act, entitled, "An Act supplementary to an act, entitled, 'An Act for the encouragement of learning, by securing the copies of maps, charts and books to the authors and proprietors of such copies, during the times therein mentioned;,' and extending the benefits thereof to the arts of designing, engraving and etching historical and other prints."

D. CALDWELL,

Clerk of the Eastern District of Pennsylvania.

Med. Hist.

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PREFACE.

It is customary, and very properly so, to reserve the preface of an encyclopedia till the publication of the concluding volume ; but the character of the present work renders it proper to state, briefly, at this time, the particulars in which it differs from the numerous works of that description, with which the public are already acquainted, and to explain the plan which has been pursued by the editors in performing their task.

The German work, which has been adopted as the basis of the **ENCYCLOPÆDIA AMERICANA**, grew out of the wants of the age. The last half century, particularly the latter part of it, has probably been more fertile in memorable events, and important discoveries and inventions, than any equal period in history. How many extraordinary changes have we witnessed in both hemispheres, as well in politics, in the sciences and in opinions, as in the individuals who have borne a conspicuous part in the affairs of the civilized world during that time ! How important have been the results of the numberless voyages of discovery, the revolutions of states, and the wars, which have excited so intense an interest during that period—an interest which has been the more constantly kept up, as the facility of communication between all the branches of the great human family seems, at the same time, to have gone on increasing in proportion to the multitude of events and circumstances which have thus influenced their destiny. Formerly, years would elapse before

the most important facts could pass the barriers which an imperfect navigation of the ocean, or a diversity of languages, had thrown between nations. Now, even the petty quarrels and frolics of students in a German or French university find their way, in the course of a few weeks, into the columns of an American newspaper. Then, a century would pass by, before even a Shakspeare was justly estimated beyond the confines of his native land ; while now, we daily find, on title pages, the united names of publishers in three or four different nations, and in both continents. Thus rapidly does knowledge of every kind now diffuse itself over the globe, and extend the circle of civilization.

In comparison with the present state of the world, how small was the theatre on which the gods of Grecian fable and the heroes of Grecian history performed their parts in that interesting drama ! During the period of Roman history, it is true, the field of civilization had become much more enlarged ; but, in our own times, it has extended over both hemispheres, and science gathers contributions from every quarter of the globe. It is therefore become necessary, that every well-informed man, who would keep his relative place during this advance of society, should possess himself of many kinds of knowledge, which might have been dispensed with in former periods ; the different sciences and arts, closely connected as they have ever been, having now more common bonds of union than in any preceding age. Considerations of this nature induced the German editors to project a work, which should furnish the general reader with all the information, that should be necessary to make him acquainted with the events and discoveries of interest, which did not happen to fall within the range of his particular studies.

For the plan of this Encyclopedia we are indebted to the late Mr. Brockhaus, a bookseller of eminence at Leipsic, who was the publisher, and, at the same time, the principal editor. He called it the *Conversation-Lexicon*, as being a work chiefly designed for the use of persons, who would take a part in the conversation or society of the well-informed

circles. The character of the work, however, has been, to a certain degree, changed by numerous improvements in each successive edition; and its original title has therefore ceased to be strictly appropriate. But, as the book had become well known, and gained its well-deserved popularity, under that name, it was thought inexpedient to reject its original appellation: it is accordingly included in its new title—*Allgemeine deutsche Real-Encyclopædie für die gebildeten Stände. (Conversations-Lexikon.) Leipzig: F. A. Brockhaus. 1827—29.*

The value attached to this undertaking of Mr. Brockhaus is evident from the fact, that about 80,000 copies of the work, now consisting of 12 volumes, have been published since 1812; besides which two pirated editions have appeared in Germany. There has also been a Danish translation (published by Soldin, Copenhagen), a Swedish, and likewise a Dutch (published by Thieme, at Zutphen). A French translation is also preparing at Brussels. More than two hundred contributors are enumerated in the preface of the original, of whom we will only mention a few, whose fame is by no means confined to the limits of their country:—G. W. Becker, in Leipsic; Chladni, in Kemberg; Gruber, in Halle; Hassel, in Weimar; C. H. L. von Jakob, in Halle; Niemeyer, in Halle; Oken, in Munich; Kurt Sprengel, in Halle; von Arétin, in Amberg; W. Gesenius, in Halle; F. Jacobs, in Gotha; J. S. Vater, in Halle; Paulus, in Heidelberg; K. W. Bessel, in Königsberg; Fr. Mohs, in Freiberg; Schubert, in Erlangen.

In presenting this work to the public in the English language, my intention has been, by making such changes and additions as the circumstances of this country required, to render it as useful and acceptable to the general reader here as the original is in Germany; and I have cherished the hope, that the circumstance of its being an *American* encyclopedia, not merely in name, but as constituting an extensive repository of information relating to America, as well as to the various branches of general knowledge, would give it a peculiar value with that great European

nation, whose language and literature are the common property of themselves and their descendants in the United States.

In the title page, this work is stated to be formed upon the basis of the German *Conversation-Lexicon*; and if the reader will compare it with the original, and consider the numerous additions and corrections which have been made, I hope he will not find cause to charge this title with being too pretending. My idea of a good American encyclopedia has been, that it should contain, besides the most valuable portions of the English encyclopedias, and the topics of peculiar value to an American reader, information upon all subjects of general interest on the continent of Europe. The publishers have, with great liberality, supplied all the means and facilities which were desired by the editor. The trustees of the Boston Athenæum have obligingly allowed free access to their ample library, which does so much honor to the metropolis of New England. But, above all, I ought to acknowledge the zealous and able co-operation of my friend and associate, Mr. Wigglesworth, who will not permit me here to express my obligations to him in such terms as my feelings would dictate. With him I shall be happy to share whatever approbation the public may think the work shall deserve.

Some of the departments of science and literature, which were but imperfectly treated in the original German work, have been entirely re-written for this edition; for example, Zoology (by Dr. Godman of Philadelphia, author of the well-known American Natural History), Mineralogy and Chemistry. The departments of Political Economy and Geography have also been much enlarged. Numerous entire articles of American and English Law have been introduced, and large additions made to the original articles on Jurisprudence, which, in the German work, are mostly confined to subjects of Roman, German and French law. In general Biography, large additions have been made. The articles on *American* Biography are entirely original, and have been furnished by Mr. Robert Walsh, Jr., whose learning and taste are a sufficient pledge of their value. Their apparently dis-

proportionate length may, with a foreign reader, require some apology ; but I persuade myself, that, with the American reader, the new and interesting information they contain will be deemed a sufficient reason for their not being further abridged. Such readers, too, will appreciate the value of many details of American history, which are not yet to be found, and could hardly be entitled to a place, in a general work upon that subject. Besides the contributions of Mr. Walsh, many new and valuable articles have been written by distinguished American scholars, particularly in relation to their own country, and to other parts of the American continent. The biography of living citizens of the United States has, for obvious reasons, been omitted ; but the reader will find an account of our most distinguished foreign contemporaries.

In Theology, and, indeed, in all the other departments of the work, the reader will not understand me as intending to give any opinions of my own, except when expressly so stated : my wish has been not to obtrude opinions, but to furnish facts. I have endeavored, as far as it was in my power, that the articles relating to any particular religious sect should present opinions and tenets as that sect would exhibit them ; and, in cases where the same point of doctrine is considered differently by different sects, that the respective views of all should be given.

The articles on the Fine Arts are, in the original work, particularly complete ; and I hope the *Encyclopædia Americana* will, therefore, be found satisfactory in a department in which the English encyclopedias have hitherto been very deficient.

The subject of Heraldry, which occupies so large a space in English encyclopedias, is wholly omitted in the original work ; and it has been thought best to follow the example of the German editors in this particular, in order to make room for other matter of far greater value and interest in a country where the well-known sentiment of antiquity is felt in its full force—

Nam genus et proavos et quæ non fecimus ipsi
Vix ea nostra voco.

It is evident that a work of this description must be unequal ; deficiencies will doubtless be observed ; but in what similar work will they not be detected ? It has been our endeavor, however, to correct such errors as existed in the German work, and in preceding English works of this kind. While criticising the faults of the present work, it is hoped that the reader will not overlook the improvements made upon the labors of past writers ; and that he will keep in mind the remark of Scaliger—*Lexicographis et grammaticis secundus post Herculem labor*.

If the present work shall conduce to the diffusion of knowledge in this fortunate country, whose happiness is founded on its liberty, and whose liberty is to be preserved only by widely-spread information ; if it shall contribute to make known what has been done or thought, attained or suffered, by other portions of the human family ; if it shall contribute to enlarge our views, and to destroy prejudices, to animate youth to a perseverance in virtue and to the pursuit of true glory, by exhibiting to them, on the one hand, the fearless votary of truth and patriotism, and, on the other, the real character of men whose perverted talents, however splendid, cannot redeem them from the severe but just sentence of impartial history ;—I shall receive the most gratifying reward for the many laborious days which have been devoted to the present undertaking.

FRANCIS LIEBER,

Philos. Dr.

Boston, Massachusetts,

August, 1829.

For the sake of compression, the initial letter of the name of an article, instead of the whole name, is often used in the body of the article. The other abbreviations used are but few, and of the common sort, such as *e. g.*, *exempli gratia* (for instance) ; *i. e.*, *id est* (that is) ; *q. v.*, *quod vide* (which see), signifying *see that article*. For other abbreviations which may be met with, see the article *Abbreviations*.

In the alphabetical arrangement of words, the letter *I* has been separated from *J*, and the letter *U* from *V*.

Words to be found in Johnson's Dictionary, which, according to the plan of this Encyclopedia, would receive only a definition, have been seldom introduced into the list of articles.

ENCYCLOPÆDIA AMERICANA.

A, in almost all languages, is the first letter of the alphabet, because, if pronounced open, as in *father*, it is the simplest and easiest of all sounds. This is the only mode of pronouncing it in almost every language except the English. To produce this sound, the mouth is merely opened, without the contraction or extension necessarily accompanying the utterance of either of the other vowels. *A* is the letter with which children generally begin to speak, and it serves to express many and even opposite emotions, e. g. admiration, pain, astonishment, laughter, (with the preceding *H*.) disgust, pleasure, according to the mode in which it is uttered. For the same reason, *a* is found, in all original languages, in many words which infants utter to designate the objects with which they are most nearly connected, e. g. in the names by which they call their parents. Hence, in Hebrew, *am* is mother, *ab* father; in old Greek and Gothic, *atta* is father; in Latin, *mamma* signifies the breast. Many philologists are of opinion, that *a* (as in *father*) was the original vowel in most of those words which designate objects expressive of great strength, quickness, &c., as these first attracted the attention of men; and it is true, that, in original languages, *a* appears in very many words belonging to the class just mentioned, e. g. the numerous rivers, *Aa* (pronounced like *a* as in *father*) in Switzerland and Germany, *Ἀλάττα* (*thalatta*, Greek for *sea*.) *A* (as in *father*) is very rarely the predominating sound in the cries of animals. In these, the sounds *ee*, *ow*, *u*, and *a*, (as in *fate*.) generally prevail. We do not include the sounds of singing birds, which are inarticulate music, like that of wind instruments. The regularly arched roof of the human mouth, and the

other fine organs of speech, with which the Creator has blessed mankind above all lower orders of animals, are necessary to pronounce the melodious sound *a* (open.) *A* is, generally speaking, the favorite sound of singers, because it is the most musical and full of those which the mouth of man can utter. Several diphthongal sounds, as *i* (in *pine*), are, in singing, to be resolved into *a* (open) and another simple sound. The frequent occurrence of *a* (open) in the Italian language, is one of the many causes which render the Tuscan dialect so favorable for music. The English language is the only one among the cultivated modern tongues, which has four (according to others still more) sounds for the single character *a*. Most of the modern languages, as French, Italian, German, &c., have only the *open* or Italian *a*, pronounced short or long. Other languages have also the sound of the English *a*, as in *all*, e. g. the dialect of Finland. In Greek, this letter, when prefixed to a word, has the power of negation, like the syllable *un* in English, and hence it was called *alpha privativum*. In many English words derived from the Greek, the *a* has the same power.—Among the Greeks and Romans, *a* was used as an arithmetical sign: by the former, for 1; by the latter, for 500. (See *Abbreviations*.)—*Ā*, in music, the sixth diatonic interval of the first or lowest octave of the modern scale: *a* indicates the same interval in the second octave. As the capital *A* is used in the first instance, and the small *a* in the next, the former is called the *great octave*, the other the *small*. *ā*, with a line above, denotes the same interval in the third, and *ā*, with two lines, the same interval in the fourth octave. The first of these, from each denomination of the note in the oc-

tave being designated by a line, is termed the *one-lined octave*, the other the *two-lined*, and so on. *A*, major, is that key, in modern music, in which the sixth diatonic interval is assumed as the fundamental tone of the major key. To maintain the natural characteristic of the major, *f*, *a*, and *c* must be made sharp, *f*♯ *a*♯ *c*♯. According to *Schubart's Characteristics of Music*, this key conveys the expression of innocent love, content, and cheerfulness. (See *Key*.) If any numeral figure is added to the letter *A*, when prefixed to a vocal composition, it denotes the number of voices for which the piece is intended: thus, *A* 3 signifies for 3 voices.

AA, the name of a great number of rivers in Switzerland, Germany, France, and Holland; so, also, *Aach*, which is, in German, originally the same name with *Aa*, only pronounced with an aspirated termination. (See article *A*.)

AAOHEN. (See *Aix la Chapelle*.)

AARGAU, *ARGOVIA*, *ARGAU*, formerly a part of the cantons Berne and Zurich, but since 1798 a separate canton. In 1803 it received a large accession of territory. Capital, *Arau*; population, 132,763. Several liberals have fled, in modern times, from Germany, and lived for a while in *A*, protected by government. (See *Swiss Confederacy*.)

AARON, (*Heb.* a mountaineer,) the brother of Moses, and first high-priest of the Israelites. (See *Moses*.)

AARON, or *HARUN AL RASCHID*. (See *Harun* and *Caliph*.)

ABACUS signified, among the ancients, a kind of cup-board, or buffet. They were, in times of great luxury, plated with gold. It also signified a table covered with dust, on which the mathematicians drew their mathematical figures, as the pupils of the Lancastrian schools do at present. It also signified an ancient instrument for facilitating arithmetical operations, which was, with the ancients, very necessary, as their way of writing numbers rendered any calculation very difficult. In architecture, Vitruvius tells us, it was originally intended to represent a square tile laid over an urn, or rather over a basket. The form of the abacus is not the same in all the orders of Greek architecture. Modern architects have given different significations to the word *abacus*. (See *Architecture*.)

ABATIS, (*Fr.*) Trees cut down and laid with their branches turned towards the enemy, in such a way as to form a defence for troops stationed behind them. They are made before redoubts, or other works,

to render attacks difficult; or sometimes along the skirts of a wood, to prevent the enemy from getting possession of it. In this case, the trunks serve as a breastwork, behind which the troops are posted, and for that reason should be so disposed that the parts may, if possible, flank each other. *Abatis* may sometimes be of essential service by retarding the progress of the enemy.

ABAUZIT, *Firmin*, was born in *Languedoc*, 1679. In consequence of the revocation of the edict of *Nantes*, his mother, who was a Protestant, took refuge with her son in *Geneva*. He engaged with such eagerness in his studies, that he made great proficiency in languages, theology, antiquities, and the exact sciences. At the age of nineteen, he travelled into *Holland*, where he became acquainted with *Bayle* and *Basnage*. Thence he passed into *England*, where he was favorably noticed by *Newton*, and invited to remain by king *William* on very advantageous conditions. He determined, however, to return to *Geneva*, and, devoting himself to study, he rendered important assistance to a society engaged in translating the *New Testament* into French. In 1727, he was appointed public librarian in *Geneva*, and was presented with the freedom of the city. He died in 1767. *Abauzit* was a profound scholar, a true philosopher, and a sincere Christian. His conversation was unostentatious, but instructive and animated. He was simple in his manners, independent and decided in his opinions, but a friend to universal toleration. He defended the *Principia*, and even detected an error in that work, when very few men could understand it. *Newton* declared him "a fit man to judge between *Leibnitz* and himself." *Rousseau* describes him as the "wise and modest *Abauzit*;" and *Voltaire* pronounced him "a great man." His knowledge was extensive in the whole circle of antiquities, in ancient history, geography, and chronology. In theology his researches were deep, and his moderation enabled him to avoid the violence of theological parties. His works are chiefly on theological subjects. An *Essay on the Apocalypse*, *Reflections on the Eucharist*, and *On the Mysteries of Religion*, are his principal writings.

ABBAS, *ABBASSIDES*. (See *Caliph*.)

ABBÉ, before the French revolution, was the title of all those Frenchmen who devoted themselves to divinity, or had at least pursued a course of study in a theological seminary, in the hope that the king would confer on them a real abbey; that is, a certain part of the revenues of a monastery. (See *Abbés commanditaires*.) Or-

dained clergymen were those only who devoted themselves entirely to the performance of clerical duty: the others were engaged in every kind of literary occupation. There were so many of them, poor and rich, men of quality and men of low birth, that they formed a particular class in society, and exerted an important influence on its character. They were seen every where; at court, in the halls of justice, in the theatre, in the coffee-houses. In almost every wealthy family there was an abbé, occupying the post of familiar friend and spiritual adviser, and not seldom that of the gallant of the lady. They corresponded, in a certain degree, to the philosophers who lived in the houses of the wealthy Romans in the time of the emperors. A round toupet, a short, black, brown, or violet coat, completed the appearance of an abbé.

ABBÉS COMMENDATAIRES. The king of France had formerly the right of appointing abbots over two hundred and twenty-five monasteries. These abbots enjoyed a third part of the revenues of the monastery, but had no authority over it, the charge of superintendence being committed to a *prieur claustral*. According to rule, every abbot ought to receive ordination in the course of a year, but the pope dispensed with the rule, and the abbé spent his income (from 1200 to 150,000 French livres) wherever he pleased. This shocking abuse excited the indignation of the people, and was one of the causes of the revolution. The lower sinecures of this kind, the *abbayes des savans*, were used as pensions for learned men; the richer, to provide for the younger sons of the nobility.

ABBEY. (See *Abbot and Monastery*.)

ABBOT, George, archbishop of Canterbury, born 29 Oct. 1562, studied at Oxford. When the translation of the Bible was begun, in 1604, by order of king James, Abbot was one of the eight divines to whom it was committed. In 1609, he went to Scotland to assist in effecting a union between the kirk of that country and the church of England, and conducted the business with much moderation and address. In Dec. 1609, he was made bishop of Litchfield and Coventry; in Jan. 1610, bishop of London; in Nov. following, archbishop of Canterbury. His enemies ascribed his rapid promotion to flattery of the king. In 1613, however, he opposed James' project of a divorce between lady Frances Howard and the earl of Essex, and,

in 1618, the royal declaration, permitting Sunday sports, which he prohibited the reading of in church. His health declining, he went to Hampshire for recreation, and, being invited to a hunt by lord Zouch, had the misfortune to shoot the game-keeper with an arrow aimed at a deer from a cross-bow. This accident affected him so much, that, besides settling an annuity of 20*l.* on the widow, he kept, during the remainder of his life, a monthly fast on Tuesday, the day of the unhappy event. Though troubled with the gout, he performed the ceremony of crowning Charles I. He was never much in this monarch's favor, and was suspended from the exercise of his functions as primate, on refusing to license a sermon preached by Dr. Sibthorpe, in justification of a loan demanded by the king. At a meeting of parliament he was restored, and died at Croydon, Aug. 5, 1633, aged 71.

ABBOT, Charles, from 1802 till 1817 speaker of the British house of commons; born 1755, studied at Westminster. His father was Dr. Abbot, minister of All Saints' church, at Colchester. Impelled by the desire of distinction, he devoted himself to the study of the law, though possessed of a considerable fortune. His object, however, was not professional reputation, though he had an extensive practice in the court of chancery. On account of a Latin poem which he wrote on the empress of Russia, Catherine II., the Russian ambassador in London presented him, in the name of the empress, a gold medal. He wrote some treatises on legal subjects, and was chosen in 1790, 1796, and 1802, into the house of commons. As a member of parliament, he exerted himself to introduce better order into the printing and distribution of the acts of parliament; and endeavored, though in vain, to effect a reform in the phraseology of the statutes, which should make them more perspicuous. In 1795, he supported Pitt's famous Riot Act, and always attached himself to the ministerial party. In 1796, he proposed, as chairman of the committee of finance, an amendment in the promulgation of the laws, which was accepted. In 1799, he supported the imposition of the income tax. In 1800, he proposed to impose upon the collectors of the public revenues the interest of the sums uncollected, in order to prevent deficits in their returns; and voted to continue the Mutiny Bill till 1807. He was successively first secretary of state in Ireland,

and lord commissioner of the treasury; was made privy counsellor, and in 1802 speaker of the house of commons. This post is fatiguing, but lucrative on account of the large fees for the enrolment of private bills which pass the house. These bills are referred to a committee, whose reports are almost always accepted, unless they propose an innovation on some established usage. The speaker is very watchful to prevent the occurrence of any thing informal in the wording of the bills, and to check all personalities in debate. This superintendence A. is said to have exercised with much impartiality. When the opposition made a motion in the house of commons to impeach lord Melville, (Dundas,) the votes were equal, and the motion was decided in the affirmative by A.'s casting vote. In 1817, he resigned his office of speaker, on account of weakness in his eyes, and entered the house of lords, having been created viscount Colchester. He is the author of a treatise on commerce and maritime law, according to the principles of the British ministry, (Lond. 1802, a third edit. 1808.) Died May 8, 1829.

ABBOT, (*Heb. abbas, father*), was originally the name of every aged monk; but since the 8th century, it denotes the head of a monastery. The abbot requires unconditional obedience from his monks, and his office is to supervise the whole brotherhood, to enforce the observance of the rules of the order, and manage the property of the convent. Since the 6th century, abbots have always been priests; and, since the second council of Nice, in 787, have enjoyed the power of conferring the lower orders of priesthood; but, in the essential points of jurisdiction, were every where subject to the diocesan bishop, till the 11th century, and independent of each other. The consequence of the abbots grew with the wealth of their monasteries; several, especially in those countries where the diffusion of Christianity proceeded from the monastic establishments, received episcopal titles and privileges; all held a rank next to that of bishop, and had a vote in the ecclesiastical councils. Equal privileges and rights appertained to the abbesses as the superiors of the nunneries, except that they have seldom been allowed to vote in synods; and the power of ordaining, the administration of the sacraments, and other sacerdotal offices, were expressly forbidden them, in the 9th century. About this time, by the favor or from the wants of the kings, abbey fre-

quently came into the hands of the laity. What avaricious barons had extorted from single convents in the 8th century, the weakness of the Carlovingians accorded to their partisans, as a reward of fidelity and military merit, since the kings possessed the right of patronage over all abbeys established on their crown lands or family estates, and generally over all which derived their origin from the royal bounty, (*monasteria regalia*.) Thus, in the 10th century, a number of the most considerable convents in the territory of the Roman church had lay abbots, or abbot-counts, (*abbates milites, abba comites*,) who appropriated to their own use the income of these institutions. In cloisters fallen to such worldly masters, the spiritual supervision was discharged by inferior abbots, deans, or priors. To the princes and princesses of the royal family, abbey were presented, to defray the expenses of their tables: the richest were retained by the kings themselves; (thus Hugh Capet was abbot of St. Denis, near Paris, and of St. Martin, at Tours.) Nunneries were sometimes assigned to men, and monasteries to distinguished females. But this abuse, which had crept even into the Byzantine empire, rarely survived the laymen who had received the gifts. These were called *commendatory abbots*, because the form of the presentation was a recommendation of the convent to their protection. The zeal, which, in the beginning of the 10th century, urged a reform in monastic discipline, gradually succeeded in abolishing such donatives to the laity; and military abbots were now more rarely seen discharging, in person, the duties of a soldier, though the convents under royal patronage were for a long time retained, to reward the services of the crown vassals in war, by contributions of money and peasants. The superiors of the military clergy bore, in the camp, the name of *field abbots*, as the name of *abbot* was, in the middle ages, frequently used to denote not only magistrates (as *abbas populi*, the prætor at Genoa) and secular ecclesiastical dignitaries, but also the chiefs of religious and jovial fraternities, e. g. *abbas cornardorum, stultorum*, the abbot of misrule. In consequence of the reform commenced at Cluny, there arose new monasteries without abbots, over which the abbot of the convent of reformed Benedictines, at this place, appointed priors or *pro-abbates*, or even *co-abbates*, who remained dependent on him. Besides the Benedictines, only the gray monks of Vallombrosa, the Cistercians,

Bernardines, Feuillans, Trappists, Grandmontani, Præmonstratenses, and some bodies of regular choristers, denominate their superiors *abbots*. In the other orders, the titles *majores*, *ministri*, priors or rectors, were in use. Besides the female branches of the above orders, the nuns of Fontevraud and the female secular choristers have abbesses. These have always remained under the jurisdiction of their diocesan bishops. The abbots of many other convents, on the contrary, shook off the authority of the bishops, and acknowledged no master but the pope. The mitred abbots enjoyed the right, frequently conferred on the Benedictines in the middle ages by the papal legate, of adopting the episcopal title and insignia. Only a few, however, possessed the episcopal power with dioceses of their own, of whom there was not one in France. Before the period of secularization, there were in Germany, but in Germany only, princely abbots and princely abbesses. These abbeys were secularized in 1803, and became principalities. By rule, the choice of abbots appertains to the chapters of their convents. In the independent abbeys, this is followed by the papal confirmation; in the dependent, by the episcopal: yet, for a long time, many abbeys in Italy have been conferred by the pope, and, in France, by the king, notwithstanding the *concordat* of 1516. The secular clergy, who enjoy these benefices without observing the rules of the order, are termed *secular abbots*; on the other hand, their vicars in the convents themselves, like all abbots of the monkish order, are called *regular abbots*. Younger sons of distinguished families have often entered the ranks of the secular clergy, in order to become secular abbots, and to receive the income of an abbey, without being restricted by monastic rules. As such expectants were called in France *abbés*, this became a general appellation for young secular clergy who were out of office. (See *Abbé*.) Since the revolution, which changed the abbeys into national property, and took from those expectants the object of their exertions, this class has diminished in France; but it is yet numerous in Italy, where young scholars are called *abbots*, merely from having undergone the tonsure, though not in orders. Napoleon led a whole army of Italian abbots to Corsica, where they lived on reduced incomes, till the restoration scattered them again over Italy. At the time of the reformation, several abbeys and convents were retained for the benefit of the clergy and the support of unmarried

females. Some Protestant clergymen, therefore, still bear the title of *abbot*, with which dignity the right of sitting in the diet of the states is united; as, for example, in the Wurtemberg assembly. There are also Protestant ladies who are called *abbesses*. In Lower Saxony, this dignity was indeed abolished, at the time of the confiscation of the cloisters, etc., under the French Westphalian government; but in some countries, e.g. in the kingdom of Hanover, it has been restored. In the Greek church, the superiors of a convent are called *higumeni*, *mandaoe*, and the abbots general, *archimandrites*.

ABBREVIATIONS; (called by the Romans *notæ*; hence *notarius*, a short-hand writer.) The desire of saving time and space, or of secrecy, led to the invention of abbreviations in writing. The abbreviations of the Romans were of three sorts: 1. Words and syllables were abbreviated, *siglæ*; 2. One letter was substituted for another, for the purpose of secrecy; 3. Arbitrary signs were used, like those of mathematics. The *siglæ* are again of three kinds, according as the abbreviations relate to syllables, words, or phrases. The two last kinds of *siglæ* are sometimes called *notæ Tironianæ*, from Cicero's freed man, Tullius Tiro. Ennius, however, had already invented 1100 of those signs, to which Tiro added the prepositions. Others increased their number still more, and Lucius Annæus Seneca collected and arranged 5000 of them. But even Ennius was not their first inventor. Every written language has such abbreviations. Many of them are indeterminate and uncertain, and the contents of many old writings and inscriptions remain, on that account, ambiguous. The oldest and most common abbreviations are those of names, titles, and formulas; e.g. *M. Marcus*, *Æd. ædilis*, *Cos. consul*, *Coss. consules*, &c. The monks, in the middle ages, made use of many abbreviations in copying the classic authors, on which account the manuscripts of that time cannot be read with ease, except by practised eyes. These abbreviations often give rise to different readings. They have been much less used since the invention of printing. The Germans employ them, for ordinary words, in greater proportion than other civilized nations. The abbreviations in the English law are numerous; there are also a great many for English titles. Many words in the modern languages arose from abbreviations of Latin terms, as they were taken by the ignorant for the words themselves. The following

list contains many of the abbreviations most frequently met with:

Roman Abbreviations on Coins, &c.—A. U. C. or AB. U. C. *ab urbe condita*, from the foundation of the city: C. *centum*: CIO or CXO, 1000: DO, 5000: CCCIOOO, 100,000: C. ML. *centum millia*: COS. *consul*: COSS. *consules*: C. R. *civis Romanus*: D. O. *dis optimis vel deo optimo*: I. H. S. *Jesus hominum Salvator*: IMP. *imperator*: K. *kalendæ*: M. S. *manu scriptum*: NON. APR. *nonis Aprilis*: PON. M. *pontifex maximus*: PRID. KAL. *pridie kalendas*: QUIR. *quirites*: RESP. *respublica*: S. C. *senatus consultum*: S. P. Q. R. *senatus populusque Romanus*: VL. *videlicet*.

Abbreviations in common use.—A. B. or B. A. *bachelor of arts*: Abp. *archbishop*: A. C. *ante Christum*: A. D. *anno Domini*, in the year of our Lord: Admr. *administrator*: Ala. *Alabama*: A. M. *ante meridiem*, forenoon; also, *anno mundi*, in the year of the world; and *artium magister*, master of arts: Ark. T. *Arkansas territory*: B. C. *before Christ*: B. D. *bachelor of divinity*: B. M. *bachelor of medicine*: Bp. *bishop*: B. V. *blessed Virgin*: C. or Chap. *chapter*: C. or cent. *a hundred*: C. B. *companion of the Bath*: C. C. *Caius college*: C. P. S. *keeper of the privy seal*: C. S. *keeper of the seal*: Ct. *Connecticut*: Ct. *count*: Cwt. *hundred weight*: D. C. *District of Columbia*: D. D. *doctor of divinity*: Del. *Delaware*: D. F. *defender of the faith*: D. G. *Dei gratia*: D. T. *doctor of theology*: Dwt. *pennyweight*: E. G. *exempli gratia*: Ex. *example*: Exr. *executor*: F. A. S. *fellow of the antiquarian society*: F. L. S. *fellow of the Linnean society*: F. R. S. and A. S. *fellow and associate of the royal society*: F. S. A. *fellow of the society of arts*: Gal. *gallon*: G. C. B. *knight grand cross of the Bath*: Geo. *Georgia*: G. R. *Georgius rex*, king George: H. or hr. *hours*: Hhd. *hogshead*: H. M. S. *his majesty's ship*: Ib. or ibid. *ibidem*, in the same place: I. e. *id est*, that is: + I. H. S. *Jesus hominum Salvator*: I. H. S. *in hac cruce salus*: Ill. *Illinois*: In. *Indiana*: Incog. *incognito*, unknown: Inst. *instant*, or of this month: J. U. D. *juris utriusque doctor*: K. B. *knight of the Bath*: K. C. B. *knight commander of the Bath*: Ky. *Kentucky*: Kil. *kilderkin*: Kt. *knight*: L. or lib. *libra*, pound; and also, *liber*, book: La. *Louisiana*: L. D. *lady day*: Ldp. *lordship*: Lea. *leagues*: Lieut. *lieutenant*: L. L. D. *legum doctor*, doctor of laws: L. S. *locus sigilli*, the place

of the seal: M. A. *master of arts*: Mass. *Massachusetts*: M. C. *member of congress*: M. D. *doctor of medicine*: Md. *Maryland*: Me. *Maine*: Messrs. *messieurs*, gentlemen: Mic. T. *Michigan territory*: Mis. *Mississippi*: Mo. *Missouri*: M. P. *member of parliament*: MS. *manuscript*: MSS. *manuscripts*: N. B. *nota bene*, take notice: N. C. *North Carolina*: Nem. *con. or Nem. diss. nemine contradicente*, or *nemine dissente*, unanimously: N. H. *New Hampshire*: N. J. *New Jersey*: N. S. *new style*: N. Y. *New York*: Obt. *obedient*: Oh. *Ohio*: O. S. *old style*: Oxon. *Oxford*: Oz. *ounces*: Pa. *Pennsylvania*: Parl. *parliament*: Part. *participle*: Per cent. *per centum*, by the hundred: Pl. *plural*: P. M. *post meridiem*: P. S. *postscriptum*: Q. *question*: Q. E. D. *quod erat demonstrandum*: Q. E. F. *quod erat faciendum*: Q. S. *quantum sufficit*: Q. V. *quod vide*: Rev. *reverend*: R. I. *Rhode Island*: R. N. *royal navy*: Rt. Hon. *right honorable*: Rt. Wpful. *right worshipful*: S. *south*: S. or St. *saint*: S. or Sec. *seconds*: S. C. *South Carolina*: Sec. *secretary*: Sh. *shillings*: ss. *scilicet*: St. *street*: Ten. *Tennessee*: Ult. *ultimo*, last: U. S. *United States*: Va. *Virginia*: Viz. *videlicet*: Vt. *Vermont*: W. or Wk. *week*: Xmas. *Christmas*: Xn. *Christian*: Xper. *Christopher*: Y^e. *the*: Y^m. *them*: Yⁿ. *then*: Y^r. *your*, and year: Y^e. *this*: Y^t. *that*.

ABBREVIATORI. Officers in the court of Rome, appointed to assist the vice chancellor in drawing up the pope's briefs, and reducing petitions, when granted by the pope, into proper form, to be converted into bulls. The 12 first have the dress and rank of prelates; 22 others belong to the lower clergy; the rest are laymen. The salary of an A. of the first rank in the last century was 2000 scudi.

ABBT. Thomas, a philosophical writer, born Nov. 25th, 1738, at Ulm in Suabia, early manifested distinguished talents, and taste for the sciences. In 1756, he entered the university of Halle, where he applied himself to metaphysics and mathematics, quitting theology, to which he had at first devoted himself. In 1760, he was invited to join the university of Frankfort, on the Oder, as professor extraordinary. Here he wrote, amidst the tumult of war, his treatise on *Death for one's Country*. In the following year, after he had accepted an appointment as professor of mathematics, at Rinteln, he lived six months at Berlin, where he became intimate with both the Eulers, Mendelsohn and Nicolai, and took an

active part in the letters on literature, (*Litteraturbriefen*.) He died in 1766, in the prime of life, at the residence of one of the minor German princes, his intimate friend and protector. A.'s writings exhibit acuteness, imagination, and spirit, and abound with practical philosophy, particularly his treatise on "Merit." He certainly would have ranked among the most distinguished writers, if he had lived till his mind was fully matured. Young as he was, he deserves to be numbered among the writers, who, in the time of Lessing, labored with united zeal to raise and refine German literature.

ABDERA, a city on the Thracian coast, which is said to have been founded by Hercules. Though it boasted of being the native place of Democritus and Protagoras, yet it was regarded among the ancients as notorious for stupidity. Wieland has portrayed it as such, in an amusing manner, in his *Abderites*.

ABDICATION, properly speaking, is only a voluntary resignation of a dignity, particularly the supreme. Of royal abdications, the most famous are those of the emperors Diocletian and Maximian, in 305; of the emperor Charles V., in 1556; of the queen Christina of Sweden, in 1654. They have been the most frequent in Spain: Charles I., in 1556; Philip V., in 1724; Charles IV., in 1808: next in Savoy and Sardinia: Amadeus I., in 1440; Victor Amadeus II., in 1730: but only a few individuals have remained faithful to their resolutions; e. g. Diocletian, Charles V., and Victor Emanuel, king of Sardinia, who abdicated in favor of his brother Felix, in 1821. (See *Piedmont*, revolution of.) Victor Amadeus, of Sardinia, attempting to resume the government by force, was imprisoned by his son, Charles Emanuel III. Involuntary resignations are also called *abdications*; e. g. Napoleon's abdication at Fontainebleau. The right of a prince to resign the crown cannot be disputed; but the resignation, as some say, can affect only his personal right to the crown, and cannot prejudice his descendants; still less force upon the state another constitution, or another family. The abdication of Charles IV. of Spain, according to them, could only take effect in favor of the legitimate successor, but could not entitle a foreign sovereign to establish a new dynasty. The abdicated prince is sometimes allowed exterior marks of homage, the title of *majesty*, &c.; but sovereign powers he can no longer exercise. Out of his own country, he enjoys not the honors of a monarch, nor

in general, jurisdiction over his suite. If he, in whose favor the abdication was made, dies, or declines the offered dignity, the right of the abdicated prince is re-vested. Thus Philip V. of Spain resumed the throne upon the death of his son Louis, which took place half a year after he had resigned in his favor. But queen Christina of Sweden made a similar attempt in vain. Voluntary abdications, as they are called, are often involuntary, and the effects of court intrigue.

ABDOMEN, in anatomical language, the belly. *Abdominal muscles*, the muscles of the belly.

ABEL, the second son of Adam, a twin brother of Cain. The latter was a tiller of the ground, A. a shepherd. Both brought their offerings before the Lord; Cain, the first fruits of the ground; A., the firstlings of his flock. God accepted the offering of A.; the offering of Cain he rejected. The latter, instigated by envy, murdered his brother in the field. Thus the first murder on earth was committed. The opinion of several Christian fathers, that A. died unmarried, has given rise to the sect of *Abelites* or *Abelonites*, (q. v.) The church considers the offering of A. as the pattern of a pure and holy offering, pleasing to God, and Christ himself calls him the just.

ABELARD, Peter, originally Abailard, a monk of the order of St. Benedict, equally famous for his learning and for his unfortunate love of Héloïse, was born in 1079, near Nantes, in the little village of Palais, which was the property of his father Berenger. His inclination led him to the study of the sciences; and, in order to devote himself fully to philosophy, he ceded to his brothers his rights of primogeniture and his estates. He studied poetry, rhetoric, philosophy, jurisprudence, and theology, the Greek, Hebrew, and Latin languages, and soon became familiar with them; but scholastic philosophy chiefly engaged his attention. Though Bretagne then possessed many distinguished scholars, A. soon acquired all they could teach. He went therefore to Paris, the university of which attracted students from all parts of Europe. William de Champeaux was the most skilful disputant of his time. A. made so good use of his instructions, that he was often victorious over his master, in contests of wit and logical acumen. The friendship of Champeaux was soon succeeded by enmity, in which his other scholars took part, and A., who had not yet completed his 22d year, escaped the consequences of their ill-will, by fixing himself at Melun,

where he was soon followed by a multitude of young men, who were induced, by his reputation, to leave the schools of Paris, in order to attend his lectures. Envy pursued him here, and he left Melun for Corbeil, where he was no less admired and persecuted. In compliance with the advice of his physicians, he soon after remitted his labors, for the purpose of restoring his disordered health by a journey to his native place. After two years, he returned with renovated strength to Paris, became reconciled to his former teacher, and opened a school of rhetoric, the fame of which soon deprived all the others of their pupils. He lectured on rhetoric, philosophy, and theology, and educated many distinguished scholars, among whom were the future pope, Cælestin II., Peter of Lombardy, bishop of Paris, Berengar, bishop of Poitiers, and St. Bernard. At this time, there resided at Paris a young lady, by name Louisa or Héloïse, niece to Fulbert, a canon of that city, then of the age of 17 years. Few ladies surpassed her in beauty, none equalled her in genius and knowledge. A., though already of the age of 39 years, became inspired with such violent love for Héloïse as to forget his duty, his lectures, and his fame. Héloïse was no less susceptible. Under the pretext of finishing her education, A. obtained Fulbert's permission to visit her, and finally became a resident in the house of the canon. The lovers lived several months in the utmost happiness, occupied more with their love than with their studies. But the verses in which A. celebrated his passion were circulated in Paris, and finally reached the eyes of Fulbert. He separated the lovers, but too late; Héloïse was already pregnant. A. fled with her to Bretagne, where she was delivered of a son, who died, however, early. He now resolved to marry her secretly. F. was obliged to give his consent, and Héloïse, who, from a false delicacy, preferred to be his mistress rather than his wife, and had formerly written to him that she would not deprive the world of so great a man by domestic cares, at last consented. The marriage was performed, and, in order to keep it secret, Héloïse remained with her uncle, whilst A. retained his former lodgings, and continued his lectures. They saw each other but seldom; Fulbert, however, thought the reputation of his niece would be injured by this secret union, and made it known; but Héloïse, valuing A.'s fame higher than her own good name, denied her marriage with an oath.

Fulbert manifested his anger by ill treatment; to deliver her from which, A. carried her away a second time, and placed her in the convent of Argenteuil. Fulbert erroneously believed it was intended to force her to take the veil, and, under the influence of rage, he subjected A. to an ignominious mutilation. A. became, in consequence, a monk in the abbey of St. Denis, and Héloïse took the veil at Argenteuil. After time had somewhat moderated his grief, he resumed his lectures, and incurred new persecutions; his enemies accused him of heresy at the council of Soissons, 1122, on account of his Essay on the Trinity. They succeeded in having it declared heretical, and A. was condemned to burn it with his own hands. Continued persecutions obliged him at last to leave the abbey of St. Denis, and to retire to a place near Nogent-sur-Seine, where he built an oratory, which he dedicated to the Holy Ghost, and called it *Paraclete*. Being subsequently appointed abbot of St. Gildas de Ruys, he invited Héloïse and her religious sisterhood to reside at his chapel Paraclete, and received them there. The lovers saw each other here again for the first time after a separation of 11 years. A. lived afterwards at St. Gildas, which afforded him but a gloomy residence, troubled by unsuccessful attempts to reform the monastery, and struggling always with his love for Héloïse, and the hatred of the monks, who even threatened his life. St. Bernard, who had long refused to proceed against a man whom he esteemed, finally yielded to the repeated remonstrances of his friends, laid the doctrines of A. before the council of Sens, in 1140, had them condemned by the pope, and obtained an order for his imprisonment. A. appealed to the pope, published his defence, and went to Rome. Passing through Cluny, he visited Peter the Venerable, who was abbot there. This humane and enlightened divine effected a reconciliation between him and his enemies; but A. resolved to end his days in retirement. The severe penances which he imposed upon himself, together with the grief which never left his heart, gradually consumed his strength, and he died, a pattern of monastic discipline, in 1142, at the abbey of St. Marcel, near Châlons-sur-Saône, at the age of 63 years. Héloïse begged his body, and had him buried in the Paraclete, with the view of reposing in death by his side. In 1800, the ashes of both were carried to the museum

of French monuments at Paris, and, in Nov. 1817, were deposited under a chapel, within the precincts of the church of Monamy. A. was distinguished as a grammarian, orator, logician, poet, musician, philosopher, theologian, and mathematician; but he has left nothing to justify the reputation which he enjoyed among his contemporaries. He excelled in the art of disputation. His doctrines were often reprehensible, and his behavior censurable. His love and his misfortunes have secured his name from oblivion; and the man, whom his own century admired as a profound divine, is now celebrated as the martyr of love. The letters of A. and Héloïse have been often published, in the original and in translations.

ABELITES, Abeliars, or Abelonians. St. Augustine gives this name to a Christian sect, which probably sprang from the Gnostics. They abstained from matrimony, to avoid propagating original sin, but adopted the children of others, and brought them up in their own principles. This society existed, towards the end of the 4th century, among the people who dwelt near Hippo, in the northern part of Africa, and borrowed their name from Abel, the son of Adam, because he died unmarried and without children. They have found followers in the Shakers, (q. v.)

ABENSBERG, district and town in the circle of Regen, and kingdom of Bavaria, 83 miles from Ratisbon, on the Abens, has 230 houses, and 1080 inhabitants. It is the birth-place of the Bavarian historian, John Thurmaier, who called himself, from his native place, *Aventinus*, lived from 1466 to 1534, and left seven books of Bavarian annals. Here Napoleon, April 20, 1809, obtained a victory over an Austrian army, under the archduke Louis and general Hiller, (see *Eckmühl*), who retired, with the loss of 12 cannons and 13000 men taken prisoners, to Landshut. This battle became important from its consequences—the taking of Landshut, on the 21st, the battle of Eckmühl, on the 22d, and the taking of Ratisbon, on the 23d of April.

ABERCROMBY, sir Ralph, a distinguished British general officer, was born in 1738, at Tillibodie in Clackmannanshire. His first commission was that of cornet in the 3d regiment of dragoon guards, in 1756; and he gradually passed through all the ranks of the service, until he became a major-general, in 1787. On the commencement of the war with France, he was employed in Flanders and Holland, with the local rank of lieu-

tenant-general, and, in that critical service, displayed equal skill and humanity. In 1795, he received the order of the Bath, and was appointed commander-in-chief of the forces in the West Indies. In this expedition he captured the islands of Grenada, St. Lucia, St. Vincent, and Trinidad, with the settlements of Demerara and Essequibo. On his return, he was appointed commander-in-chief in Ireland; but, for reasons very honorable to himself, was quickly removed to the correspondent command in Scotland. In the attempt upon Holland, in 1799, sir Ralph had the sole command on the first landing, and both his troops and himself greatly distinguished themselves. His royal highness the duke of York subsequently arrived, under whom sir Ralph acted. The final failure of the expedition is well known. The next and concluding service of this able and meritorious officer was in the expedition to Egypt, of which he was commander-in-chief. He landed, after a severe contest, at Aboukir, Mar. 8, 1801; and on the 21st of the same month was fought the battle of Alexandria, in which sir Ralph was unhorsed and wounded in two places; notwithstanding which he disarmed his antagonist, and gave the sword to sir Sidney Smith. The general kept the field during the day, and was then conveyed on board the admiral's ship, where he survived about a week. His body was conveyed to Malta, and interred beneath the castle of St. Elmo, and a monument was voted to him, by parliament, in St. Paul's cathedral. His widow was also created baroness Abercromby, with remainder to the issue male of her late husband; and a pension of 2000*l.* a year was granted in support of the dignity. Sir Ralph A. left four sons, George, a barrister at law; John, a major-general; James and Alexander.

ABERDEEN; the principal city in the north of Scotland; lat. 57° 9' N. lon. 2° 8' W. It is divided into Old and New A. The old town was of some importance as early as 893. The population of O. and N. A. is supposed to be about 40,000. A. has two colleges, King's and Marischal's, which, though quite distinct, are considered as forming one university, called the U. of king Charles. There are about 150 students in each of these colleges. The cotton manufactories in the vicinity of A. employ nearly 1000 persons. Vessels to the burthen of about 40,000 tons belong to the port, which is extensively engaged in the whale and

other fisheries. About 2000 barrels of salmon are exported annually.

ABERDEEN, George Gordon, earl of, also viscount Forminine, one of the 16 Scottish peers, who have seats in the house of lords, was sent as ambassador to Vienna, for the purpose of concluding an alliance between England and Austria, which he signed Oct. 3, 1813, at Teplitz. He negotiated, also, the alliance of king Murat, of Naples, with Austria, in 1813; but endeavored in vain to reconcile those courts in 1815. Lord A., as an admirer of Grecian art, instituted, in 1804, the Athenian Society, each member of which must have visited Athens.

ABERLI, John Lewis, a landscape painter, famous for his *Views of Switzerland*; born in 1723, at Winterthur. He relinquished the manner of his teacher, Meyer, an indifferent artist, went to Berne, received better instruction from John Grimm, and at first painted portraits. But his inclination for landscape painting gained the ascendancy. He went, in 1759, with his pupil Zingg, to Paris, and returned, esteemed and admired, to Berne, where he died in 1786. His manner has been very often imitated, yet his sketches have always maintained the reputation of being the best in their kind.

ABERRATION of light. We see an object because the rays of light proceeding from it strike our eyes, and we see the place of the object in the direction in which they proceed. Let us now imagine the earth, in its circuit round the sun, just arrived opposite to a fixed star, which sends off rays perpendicularly to the direction of the earth's motion. The eye of the spectator meets the ray, and as he perceives not his own motion, he supposes the light to be moving in an opposite direction; as, when we sail in a boat, the trees on the shore appear to pass along by us. Thus the eye misses the perpendicular ray, but meets an oblique one, and thence receives the impression of the light in the direction which results from this compound motion, namely, in the diagonal of a parallelogram, the sides of which represent the real motion of the light, and the apparent one, (i. e. the motion of the earth,) which take place at the same time. The spectator sees the star in its true place only when he is either approaching it, or receding from it, in a straight line. When moving in any other direction, the star appears a little in advance of its true position in the same direction (the maximum is $20''$ — $25''$); and we call by the name of *aberration*

of light these apparent changes in the situation of the heavenly bodies, occasioned by the motion of the earth. We easily see that these changes are common to all the heavenly bodies, and are only more striking in the case of the fixed stars. They afford an additional proof of the motion of the earth. In consequence of this aberration, the fixed stars appear, during the revolution of the earth about the sun, according as they are situated, either in the plane of the ecliptic, or in its poles, or somewhere between them, in the first case to deviate in a straight line to the right or left of their true place, in the second to describe a circle, in the third an ellipse about that point, which further observation determines to be their real situation. This discovery we owe to Bradley, (q. v.) For the aberration of light, see the elementary works on astronomy, the dictionaries of natural philosophy by Gehler, Fischer, &c. There is a very good account of it in Biot's *Traité Élémentaire d'Astronomie Physique*, Paris, 1811, 2d Treatise, vol. 3, page 120, et seq. Tables of aberration, accompanied with explanations, are to be found in the baron von Zach's works, *Tabulæ speciales Aberrationis et Nutationis, etc.*, Gotha, 1806, and in the same author's *Nouvelles Tables d'Aberration et de Nutation pour 1404 Étoiles, avec une Table générale d'Aberration pour les Planètes et les Comètes*, Marseilles, 1812, and *Supplément*, 1813.

ABILDGAARD, Nicolai Abraham, historical painter to the king of Denmark, and knight of the order of Danebrog. He was born at Copenhagen, in 1744, and died there in 1809, director and professor of the academy of fine arts. He was undoubtedly the greatest genius, in painting, that Denmark ever possessed. All his works display profound study, richness of imagination, and remarkable power of expression. Five years' residence in Italy completed the education which he had received in the academy of arts at Copenhagen, yet his works never lost the character of originality. The creations of his productive imagination were sometimes of a gloomy, and always of a grand and solemn character. Modern painting can hardly show a finer coloring. A considerable number of the large pictures in the apartments of the royal palace at Christiansburg, burnt down in 1794, were by A. A. has painted four pictures, representing, with much force of allegorical expression, the most striking periods of European history. But few of his works in the palace were saved

from the conflagration. A considerable number of his pictures, however, still exist in and out of Copenhagen. The wounded Philocletes is as vigorous as his Cupid. is delicate; both are executed in the style of a master. There are also an excellent Socrates, Jupiter weighing the fate of man, and others. His last works were four large paintings, representing scenes from Terence. Nearly all his works are those of a painter formed by the study of the ancients, and of the remains of antiquity. Nothing escaped his observation, which stood in the remotest relation to his art. He was likewise a distinguished lecturer in the royal academy of arts, and has left several disciples, painters as well as sculptors, who do honor to their master and to their country; amongst whom, superior to all the rest, is Thorwaldsen. A. acquired reputation as a writer by some short essays, the object of which was, partly, to correct a false taste in regard to the arts, partly to illustrate the earlier works of art.

ABIPONIANS; a warlike tribe of Indians, between 28° and 30° S. lat., on the banks of the Rio de la Plata, consisting of 5000 persons, who pay little attention to agriculture, but employ themselves principally in hunting and fishing. During the five rainy months, they resort to the islands of the Rio de la Plata, or to the tops of trees. The Abiponians prefer the flesh of tigers to every other meat, superstitiously believing that it gives new courage to the warrior. Long lances, and arrows with iron points, are their weapons. They are often at war with the Spaniards. Their wives are not much browner than the Spanish ladies. The men are tall, with aquiline noses, are good swimmers, and fond of painting figures on their skin. Their caziques are, in times of peace, their judges, in war their leaders. In peace, however, their authority is very limited; for if a cazique should attempt an unpopular innovation, the multitude would leave him, and join other tribes.

ABJURATION, oath of; the oath by which an Englishman binds himself not to acknowledge any right in the pretender to the throne of England. It signifies, also, according to 25 Charles II., an oath abjuring particular doctrines of the church of Rome.

ABLEGATI; in diplomatic language, papal ambassadors of the second rank, who are sent with a less extensive commission, to a court where there are no nuncios. This title is equivalent to *envoy*. (See *Ambassador*.)

ABO (in Finnish, *Turku*) contains 1100 houses, and 11,300 inhabitants. Since 1817, it has ceased to be the capital of the government of Finland. The Russian administration has endeavored, however, to support it by other means; and it continues to be the capital city of a district, as well as the seat of a Lutheran bishopric, (in 1817, raised to an archbishopric,) and of the supreme court of justice for South Finland. The mouth of the river Aurajocki, protected by a promontory of the gulf of Bothnia, forms the harbor of the city, which, since 1817, has been the chief place of export from Finland to Sweden, and even to the Mediterranean. It has important sugar-works, and manufactures of leather, linen, sail-cloth, cordage, glass, coarse broad-cloth, &c. Many ships are built in its docks. The academy which Gustavus Adolphus established in 1628 was changed by Christina, queen of Sweden, into a university, which was endowed still more liberally by the emperor Alexander. It had, in 1824, forty professors, and more than 500 students, a library of 30,000 vols., a botanical garden, an observatory, an anatomical building, and a chemical laboratory, a cabinet of medals and minerals, a collection of mechanical and agricultural models, a society for the promotion of science, one for natural history, a Bible society, &c. In the autumn of 1827, the whole city, including the buildings and library of the university, was burnt down. The Russian government has taken energetic measures for rebuilding it.

ABO, peace of. Aug. 17, 1743, Sweden here concluded peace with Russia. This ended the war which broke out Aug. 24, 1741, between Russia and Sweden, at the instigation of France, in order to prevent Russia from partaking in the Austrian war of succession. In this war, after the victory of Lacy, near Wilmanstrand, Sept. 3, 1741, the Russians conquered all Finland, in consequence of the mistakes of the Swedish generals, Löwenhaupt and Buddenbrog. The empress Elizabeth promised, however, to give up a great part of her conquests, if Sweden would choose the prince Adolphus Frederic of Holstein-Gottorp, bishop of Lubec, heir to the Swedish crown, instead of the crown-prince of Denmark. This was done July 4, 1743. Thus, in 1751, the house of Holstein-Gottorp took possession of the Swedish throne, which it lost again after the abdication of Gustavus IV., in consequence of a resolution of the states of the kingdom, May 10, 1809, which took effect upon the death of

Charles XIII., Feb. 5, 1818. After this election, the treaty of peace was signed at A., in which Sweden ceded to Russia the Finnish province of Kymmenégord, with the cities and fortresses of Fredericshamm and Wilmanstrand, and the city and fort of Nyslot. From that time, the river Kymmené has been the boundary between Sweden and Russia, until the latter power obtained the whole of Finland, at the peace of Fredericshamm, Sept. 17, 1809. June 25, 1745, peace was concluded between Sweden and Russia, at St. Petersburg.

ABOLITION. (See *Pardon*, right of.)

ABOLITION of slavery. *The Society for mitigating and gradually abolishing the State of Slavery throughout the British Dominions*, sometimes called the *Anti-slavery Society*, has been recently formed. His R. H. the duke of Gloucester is president of the society. In the list of the vice-presidents are the names of many of the most distinguished philanthropists, and, among them, that of the never-to-be-forgotten champion of the negro's cause, Mr. Wilberforce. The society has already published several works illustrative of the state of slavery, and pointing out its evils in a commercial, political, and religious point of view. (See *Slavery, Colonization Society* and *Wilberforce*.) The more immediate objects of the society are to ameliorate the condition of the slaves, and to facilitate the means by which they may obtain their freedom; and, for the accomplishment of these purposes,—To remove all the existing obstructions to the manumission of slaves: To cause the slaves to cease to be chattels in the eye of the law: To prevent their removal, as *slaves*, from colony to colony, and, under certain modifications, their sale or transfer, except with the land to which they may be attached: To abolish markets and compulsory labor on Sunday, and to make it a day of rest, as well as of religious worship and instruction; and also to secure to the slaves equivalent time in each week, in lieu of Sunday, and in addition to any time which, independently of Sunday, is now afforded them, for cultivating their provision grounds: To protect the slaves, by law, in the possession and transmission of the property they may thus or in any other way acquire: To enable the slave to purchase his freedom by the payment at once of a fair price for his redemption, or of a fifth part of that price at a time, in return for an additional day in the week to be employed for his own benefit: To make the testimony of

slaves available in courts of justice, both in civil and criminal cases: To relieve all negroes and persons of color from the burden of legally proving their freedom, when brought into question, and to throw on the claimant of their persons the burden of legally proving his right to them: To provide the means of religious instruction for the black and colored population, and of Christian education for their children: To institute marriage among the slaves, and to protect that state from violation and from either forcible or voluntary disruption: To put an end to the driving system: To put an end, also, to the arbitrary punishment of slaves, and to put their persons as well as property under the guardianship of the law: To provide that all children born after a certain day shall be free,—care being taken of their education and maintenance until they shall be capable of acting for themselves: To provide that no colonial governor, judge, attorney-general or fiscal, shall be a possessor of slaves, or shall have a direct and obvious reversionary interest in such property, or shall be the agent of the proprietors of slaves. The society has further proposed, that the final extinction of slavery should be accomplished by the redemption of all females from the lowest age, to about 40; by which means all their posterity would be born free. The cost of this measure is estimated at 300,000*l.*; but should parliament refuse to accede to this or some other effective plan, the society trust that their object will, nevertheless, be obtained by bringing free labor into competition with slave labor; so that the latter shall become of so little value as to be not worth retaining. The parent society is supported by many auxiliaries, not fewer than 250 of which are in active operation in various parts of the kingdom; and if they continue to proceed with the energy that has hitherto marked their progress, there can be little doubt that they will finally succeed in a cause, in which truth, justice, and the dictates of religion, are arrayed on their side.

ABORIGINES; the name given to the eldest inhabitants of a country, of whose origin nothing certain is known. The Roman historians give this name to the people who dwelt in the vicinity of Rome, before the arrival of the Trojans. Different derivations of the word are given. For the right of aborigines to the soil, see *Indians*, and *Occupancy*, right of.

ABOUKIR, the ancient Canopus, is at present a village with 100 Arabian inhabit-

ants: it has a strong castle on the western side of a spacious bay, protected by a projecting point of land and several small islands, and is situated on the Egyptian coast, 10 miles east of Alexandria. This place has become distinguished, in modern times, by the naval battle, in which the English admiral Nelson annihilated the French fleet, between the first and the third of August, 1798. May 19, 1798, the latter sailed from the harbor of Toulon, to convey an army to Egypt, under the command of general Buonaparte. As soon as the English admiral St. Vincent, who was cruising before Cadiz, received information of this, he despatched rear-admiral Nelson, with 14 ships of the line, to the Mediterranean, with orders to seek and attack the French fleet. Aug. 1, Nelson caught a glimpse of the French ships in the road of A. and gave the signal of battle. The French captains, who were just then assembled on board the admiral's ship, had hardly time to retire to their posts, before the first English ship began the attack. Although the French fleet was disposed in a curved line, as near as possible to a small island, protected by a battery of cannon and mortars, Nelson suddenly ordered half of his force to break through, between the island and the French line of battle, and to sail under the shore, in their rear, while the other half approached their front, and anchored within pistol shot; so that the French ships were attacked from all sides. At sunset, about half past 6 o'clock in the evening, the battle began. At the end of an hour, 5 French ships were dismantled and taken. The French admiral, Brueys, was killed by a cannon-ball; his ship, L'Orient, however, continued the battle with great spirit, until she took fire. About 10 o'clock, this splendid vessel, of 120 guns, blew up. Of 1000 men, but 70 or 80 were saved. Capt. Casabianca was mortally wounded, and his son, a boy 12 years old, voluntarily remained in the burning ship, and shared his fate. The other ships continued the cannonade till the morning, which witnessed the entire defeat of the French fleet. But 2 ships of the line and 2 frigates escaped to Malta and Corfu; 9 ships of the line were taken, 1 blown up, and another, together with a frigate, burned by the French themselves; 1 frigate, however, was sunk. Thus the naval power of France in the Mediterranean was a second time annihilated; the British flag waved triumphant from Gibraltar to Alexandria; Buonaparte's communica-

tion with France was cut off, and his enemies, with renovated hopes, united again, in the subsequent year, in a new coalition. (See *Egypt, landing of the French in.*)

ABOUKFEDA. (See *Aboukfeda.*)

ABOUT; the situation of a ship immediately after she has tacked, or changed her course.

ABRACADABRA; a term of incantation, which was formerly believed to have the power of curing fevers, especially the slow fevers, the intermittent of 4 days, and the hemitritæus, so called by Hippocrates, which was generally fatal. At present, this word is, for the most part, used in jest, without any particular meaning, like *hocus pocus*. According to Q. Serenus Sammonicus, it ought to be written so as to form a magic triangle, in order to produce the supposed effect; viz.

A B R A C A D A B R A
B R A C A D A B R
R A C A D A B
A C A D A
C A D
A

or as follows:

A b r a c a d a b r a
A b r a c a d a b r
A b r a c a d a b
A b r a c a d a
A b r a c a d
A b r a c a
A b r a c
A b r a
A b r
A b
A

The triangle, thus formed, reads *Abacadabra*, beginning with *A*, and thence passing over to any line you please, and stopping at the last letter of the first line. Greek amulets, which bear the inscription ΑΒΡΑΚΑΔΑΒΡΑ, leave no doubt that this magic word, properly, ought to be pronounced *Abrasadabra*, though the Jews say also *Abracalan*. *Abrasadabra* probably means *divine decree*, and is derived from the sacred name of the Supreme Being, *Abrasax*, or *Abras*. Others are of opinion that the term *Abrasax* took its origin from the first letters of the Hebrew words *Ab, Ben, Ruach hakodesh*, (Father, Son and Holy Ghost,) and from the initials of the Greek words, σωτηρία ἀπὸ ξύλων, (salvation from the wood of the cross.) *Abrasax* is neither an Egyptian, nor Greek, nor Hebrew, but a Persian name, which denotes the Persian deity, Mithras.—Superstitious people, moreover,

used to write the word *Abacadabra*, in the manner above-mentioned, on a square piece of paper; then folded it so as to cover the writing, sewed it together with white thread, hung it, by a piece of tape, around the neck, so as to reach the heart, wore it for 9 days, and then went, before sunrise, in profound silence, to a river which flowed to the east, took it from the neck, and threw it, but without opening or reading it, into the water over their heads.

ABRAHAM; the father, and most celebrated patriarch of the Jews, with whom their history commences, as, likewise, the promises given them by God, and the miracles performed in their favor. He was born at Ur, in Chaldæa, about 2000 B. C., and descended in the eighth generation from Shem, Noah's eldest son. He passed his early days in the house of his father, Terah, where he was kept from idolatry, which prevailed in his family. Obedient to the voice of God, which pointed out his noble destiny, and commanded him to settle in Canaan, he went to that country with his father, his wife, and his nephew, and fixed his abode at Haran, in Mesopotamia. After his father's death, he led a wandering life, in obedience to the will of God. He visited Sichem, Bethel, and Gerara, whence he returned to Bethel. Frequent dissensions between his servants and those of Lot caused their final separation. A remained at Mamre, but Lot settled in Gomorrah. Afterwards, on hearing that four Arabian chiefs had invaded Gomorrah, and carried off Lot with his family and property, A. pursued them with 318 servants, conquered them, and rescued his nephew, and all that belonged to him. God revealed futurity to A. and ratified his covenant with him and his posterity, by the law of circumcision. The advanced age of A. and Sarah seemed to render doubtful the fulfilment of these promises, when three angels, in the shape of travellers, came to visit them. They were sent to punish Sodom and Gomorrah for their wickedness, and announced that, at their return, Sarah would be a mother. Though she was 90 years old, she conceived, and bore Isaac, at the time designated by the angel. When Isaac had reached his 25th year, God wished to put A.'s fidelity to a new trial, and commanded him to sacrifice his only son, on mount Moriah. The old man was ready to obey. The victim was already placed on the altar, and about to receive the fatal stroke, when God, convinced of

the obedience of his servant, stopped his lifted arm. Sarah died, but A. married Keturah, who bore him 6 more children. He died 175 years old, and was buried near Sarah, in a cave which he had bought for his sepulchre from the sons of Heth. Not only the Jews, but also the Arabians, derive their origin from this patriarch: the Greek and Roman churches have introduced his name into their legends. He is also mentioned in the Koran, and some of the Mahometan writers assert that A. went to Mecca, and commenced the erection of the temple. The Jews have at all times honored his tomb and his memory. His history, as given by the rabbins, is a mixture of truth and fiction.

ABRAHAM a Sancta Clara; born in Krähenheimstetten, in Suabia, June 4, 1642. His true name was Ulrich Megerle. He was distinguished, as a preacher, for the originality of his conceptions. At Marienbrunn, in the south of Austria, he joined, in 1662, the barefooted friars of the order of St. Augustin, applied himself to philosophy and theology, in a monastery of his order at Vienna, was then employed as preacher in the convent of Taxa, in Bavaria, and soon called to preach at the imperial court of Vienna, where he continued till the year 1709, when he died, 67 years old. His sermons are burlesque, and full of the strangest notions. His striking peculiarities, agreeable, however, to the spirit of his age, procured him a numerous audience, and his sermons were not without effect, since they treated of popular subjects, and were seasoned with much sarcasm, adapted to all ranks. The titles of some of his writings show the tone in which they are composed: as, *Fly on the World, or, about Virtue and Vice; Salutary Mixture; Abraham a Sancta Clara's Nest of newly-hatched Fools, or curious Workshop of various Fools, both male and female, etc.* A. was, by nature, a popular orator; he joined to an odd exterior a strong mind, endowed with a thorough knowledge of mankind, and a fervent love of truth. With the boldest frankness, he scourges the follies of his age, and vigorously attacks the weak mysticism and pedantry of most preachers of his time.

ABRAHAM, heights of. (See *Quebec*.)

ABRAHAMITES, Abrahamians, or deists of Bohemia, were a number of ignorant peasants, who came forth from their obscurity in 1782, confiding in the edict of toleration published by Joseph II., and avowed the same belief which Abraham

professed before the law of circumcision. The doctrine of the unity of God, and the Lord's prayer, were all which they regarded in the Bible. Their petition for freedom in religious worship was, however, rejected, because they refused to declare themselves Jews, or members of any of the established Christian sects. The emperor Joseph, less enlightened in matters of religion than is generally believed, drove these honest people, in 1783, from their possessions, because they resisted all attempts made for their conversion, and dispersed them, by military force, among various places, on the boundaries of Hungary, Transylvania, and Sclavonia, where they were compelled to embrace the Roman Catholic faith, and the men to join the frontier militia. Many of them adhered firmly to their religious principles.

ABRANTES; a city of 3,500 inhabitants, on the right bank of the Tagus, in the province of Estramadura, in Portugal. It is considered as of great military importance, on account of its situation on a number of steep hills, forming a defile; by reason, likewise, of its old castle, converted into a citadel; and of the river, which is navigable as far as this place. The Portuguese, in this fortress, braved the Spaniards as early as 1762. In 1808, the army under Junot arrived at A., after a dangerous and tedious march along the banks of the Tagus, through the woody, mountainous and barren Beira. Junot ordered the castle, as well as the city, which he found ungarrisoned, to be placed in a state of defence; and, in spite of the great fatigue of his troops, hastened to Lisbon, then occupied by 15,000 Portuguese soldiers, and inhabited by 350,000 souls. The quickness of his march, and the daring courage with which he took possession of this capital, at the head of only 1500 grenadiers, induced Napoleon to make him duke of Abrantes. At a later period, however, he committed gross mistakes. At the capitulation of Cintra, A. was surrendered to the English, who made it still stronger. It was, however, of no importance during the remainder of the war, except to Massena, who reconnoitred it at the time when he sat down before the strong position of the duke of Wellington, between Santarem and Peniche.

ABRASAX. (See *Abraxas*.)

ABRAXAS STONES, or AERASAX STONES, are very numerous, and represent a human body, with the head of a cock and the feet of a reptile. The inscription

Abra or *Abrasax* is often found on them, in Greek characters, which betray, however, a foreign origin. Bellermann, in his Essay on the Gems of the Ancients, bearing the Image of Abraxas, Berlin, 1817, declares only those having the above inscriptions to be genuine. The gems which have been imported into Europe from Egypt and Asia, and are also found in Spain in great abundance, belonged, according to his opinion, to the religious sect of the Basilidians, and were used, partly as means to teach secret doctrines, partly as symbols, partly as amulets or talismans. Grotefend derives the name from the Persian language; Bellermann thinks it to be a composition of the Egyptian words *Abra* and *Sax*, and renders it "*the holy word of bliss*," which reminds us of the *Tetragrammaton* of the Jews. Different explanations have been proposed by others. The ancients attempted to give meaning to the word by considering the letters as Greek numerals, which make together 365.—The name of *Abraxas stone* is, in modern times, applied to a variety of gems that exhibit enigmatical compositions, strange words in foreign characters, as *Ablanathanalba*, &c., and even to those which bear the emblems of Sabæism, the sun and moon, with other symbols, which want, however, the characteristic type of the Basilidians. These are more properly called *Abra* or *Abrasax stones*. The Basilidian names, seen on many stones of this class, are explained by Bellermann, by the aid of the Semitic languages. The interesting disquisition on this subject of Neander, professor at the university of Berlin, deserves to be carefully compared with the opinions advanced by Bellermann.

ABRIAL, André-Joseph, born March 19, 1750, at Annonay, département de l'Ardèche, at present count and peer of France, &c., studied law in Paris, and embraced the principles of the revolution, during which he was, for a long period, commissioner of the executive power in the court of cassation. In 1799, he organized the republican government in Naples. After the 18th of Brumaire, the first consul intrusted him with the ministry of justice, saying, as it is related, "Not I, but the public voice nominates you." After 18 months, he quitted this station, and entered the *sénat conservateur*. In 1804, he organized the département of justice in Italy, when the young Cisalpine republic was again dissolved. In 1811, he was made count of the empire, and was for 10 years a member of

that committee in the senate, ridiculously called *commission de la liberté individuelle*, while it daily submitted, with blind subservience, to the imperial orders. In 1814, Abrial voted for the overthrow of the imperial dynasty. Louis XVIII. made him a peer, and since that time he has voted with some independence in the chamber of peers.

ABRUZZO, the northern extremity of the kingdom of Naples, is bounded on the north and west by the states of the church, on the east by the Adriatic, on the south by Puglia and Terra di Lavoro. It contains 628,600 inhabitants, and is divided into A. ulterior, which comprises the north-western, and A. citerior, which comprises the south-eastern part. The highest part of the chain of the Apennines crosses this mountainous country. In A. ulterior, especially, it is very lofty, with steep cliffs, and throws extraordinary obstacles in the way of internal communication. The rivers which rise in A., the Trento, Trontino, etc., generally flow in a direct course into the Adriatic sea, and have (the Pescara and Sangro excepted) the character of torrents. They are often suddenly swollen by the rains, especially in the spring, and then sweep away the bridges and all means of communication. The climate of A. is severe. The summits of the mountains are covered with snow from October to April. Thick woods crown the eminences; the valleys only are productive; and even they (as the inhabitants are mostly shepherds) afford but a very scanty supply of grain. Almond, walnut, and other fruit-trees thrive every where; olives, in the lower regions, near the sea. The finest herds of all kinds of cattle feed on the heights and in the valleys, and constitute the only article of export. The most important cities are Aquila, Pescara, (both fortresses,) and Sulmona. The importance of A. consists, principally, in its military sites. Projecting like a bastion 60 geographical miles, far into the territory of the church, it becomes especially important from the circumstance that but one military road, and that an extremely difficult one to an army, leads into the kingdom. There is, indeed, no one like it across the mountains, from the shore of the Mediterranean to that of the Adriatic sea. The kingdom of Naples, therefore, if well defended, is exposed to serious attacks on two roads only; namely, on that which stretches along the Mediterranean sea and the Pontine marshes, from Rome, by Terracina and Capua, to Na-

ples; or on the one which runs along the Adriatic, from Ancona, by way of Atri, Pescara, etc. into the interior. On the latter road, each of the many parallel rivers forms an excellent position, where the right wing may always be protected by the sea, the left by the contiguous mountains, from which the flank of the assailants is itself exposed to attack. To force these positions would cost a bold enemy much blood. It would be yet more dangerous to attempt to pass Terracina, on the other road, without having possession of A.; for as soon as the army had arrived at Terracina, the rear might be attacked on the left from Rome and the mountains. Finally, should the invaders advance by both roads at once, all communication would be destroyed before they reached Pescara, whence a good road leads over the chain to Sulmona and Teano. They would meet with all the above difficulties, and, at the same time, incur the danger of being defeated in detail. The possession of A. is, therefore, indispensable for the attack of Naples; to force it, however, would be very difficult. As has been said above, of the roads from the states of the church into this province, only the one from Rieti, through Civit  ducale to Aquila and Sulmona, is practicable for artillery, and only two others for regular troops, and that with difficulty. All the other ways are nothing more than paths through morasses, where the troops must march in single files, and the cavalry lead their horses. The road from Rieti is, therefore, the only one on which a serious attack can be undertaken; but the strong pass of Antrodocco, and numerous good positions, facilitate its defence. Besides, the thick forests with deep ravines afford advantages for a partisan warfare, in the manner of the *guerillas*, or the Tyrolese and, had the Neapolitans a warlike spirit, the possession of A., whenever attacked, would not have been obtained without a great sacrifice. But when a people is destitute of courage and energy, when the soldiers, sunk in cowardly apathy, run away at the mere idea of a battle, the most favorable ground will be of no advantage. This is the reason that A., so well adapted for a defensive war, has always been of little use; that Naples has been the prey, sometimes of the Austrians, at other times of the French or the Spaniards; and that the inhabitants have but seldom resisted the conquerors. Once only, in 1798, did the natives of A. rouse themselves against the victorious French

they killed their general, Hilarion-Point, took general Rusca prisoner, and did important injury to the conquerors, especially to the column of general Duhesme. But as the Neapolitan army had been defeated in the states of the church, and fled in the most cowardly manner wherever the French showed themselves, these momentary ebullitions of courage were of little avail to the descendants of the bold Samnites, Marsi and Sabini, who once dwelt on these mountains, a terror to the Romans; and the subsequent petty commotions, in 1806, partook too much of the character of common robberies to merit commendation. In 1815, when Murat advanced against the Austrians, the government was too much hated to be able to organize a popular war after the battle of Tolentino. Instead of resisting, the soldiers born in A. dispersed to their homes, when they marched through this province on their return, and the rivers on the eastern coast rather hindered the retreat of the Neapolitans than the advances of the foe, who proceeded without opposition, both by the roads along the coast and over the mountains, with columns composed of light troops, and by this daring step effected the entire dissolution of the Neapolitan army. In 1821, the revolutionary party at Naples hoped that A. would afford the greatest advantages in a defensive war; and the Vendittas of the Carbonari, the popular assemblies, and even the French chamber of deputies, again resounded with praises of the ground and of the spirit which inspired the inhabitants, the worthy descendants of their daring ancestors. The result completely disappointed expectation. After the plan of the Austrians to attack A. on the road from Cività ducale to Aquila and Sulmona was determined on, general Pepe resolved to commence the offensive. On March 7th, 1821, he crossed the boundary of Cività ducale, and attacked general Geppert, at Rieti. His troops advanced with reluctance, found themselves surrounded by two battalions of Austrians, and determined to retreat. The Austrians quickly pursued; the division under Wallmoden reached the strong pass of Antrodocco on the 9th, attacked and soon obtained possession of it, another division having already taken the pass of Borghette without resistance, while one portion of the Neapolitans fled from dissatisfaction with the new government, and another from cowardice. The whole Neapolitan army being dispersed, the militia and volun-

teers returned home; the troops of the line, weakened by desertion, withdrew into the interior of the country; and Pepe himself left the army in anger at their cowardice. Aquila opened its gates on the 11th; the citadel then capitulated, and the inhabitants of Abruzzo furnished the Austrians with provisions, without evincing any desire to prolong this partisan war. By the speedy advance of the Austrians to Sulmona, general Carascosa, who held possession of the road of Teracina, and also the corps which protected the road along the coast of the Adriatic, were surrounded, and both the regulars and militia, having dispersed, hastened back. Thus ended a war, which affords another proof, that even the pass of Thermopylæ has no value unless defended by Spartans. The inhabitants of this mountainous region are generally banditti, who render the frontiers of Naples and of the territories of the church extremely insecure. These banditti consist of the peasants living in the mountains, who possess property and families, but, in addition to their agricultural concerns, make a trade of robbery. Urged by rapacity and poverty to murder and plunder, they unite and fall upon the traveller, and not unfrequently upon the inhabitants and houses of the plains.

ABSALOM, (in Danish, *Axel*.) bishop of Roeskilde or Rothschild, and archbishop of Denmark from 1158 to 1201; renowned as a clergyman, statesman, general, and navigator; descended from a family of high rank, and, even from his early youth, a friend and counsellor of king Waldemar I., whose ability in peace and war procured him the surname of *the Great*. A. had a large share in the administration of Waldemar I. He was active, humane, and learned; set an example of industry to the monks, and improved the condition of the church in Denmark. In his youth, he studied at Paris. Under his direction Saxo wrote the valuable *Danish chronicle*. A. never abused his power or the favor of the king; so that Waldemar ever remained his friend. He had the honor of being the founder of the chief city of Denmark, Copenhagen. He built the castle, called, after him, *Axelburg*, and the city, *Axelstadt*. This castle, enlarged and improved, served the kings of Denmark afterwards for their residence, till the 18th century. A. died, A. D. 1201, in the 73d year of his age. His grave is still seen in Soroe, then a convent in Zealand.

ABSENTEE; a word in modern times particularly applied to those land-owners

and churchmen of Ireland who reside in England, or in foreign countries. In 1715, a tax of 4 shillings in the pound was levied on all profits, fees, pensions, &c., derived from Ireland, in all cases where the persons receiving them should not reside in that country for six months in the year; power to grant leave of absence being reserved to the crown. In 1753, the tax ceased.

ABSOLUTION. In the ancient Christian church, absolution was a judicial act, by which the priest, in the name of the community, invoking the favor of God, announced to the penitent his remission from ecclesiastical punishment, and readmission into the bosom of the church. Private absolution having become prevalent for four centuries, through priests acting in the place of the bishop, the opinion was spread among the people, that they had the power of absolving, by their own authority, and without the consent of the church. But down to the 12th century, they used only the formula, "may God or Christ absolve thee;" which is still the form in the Greek church, and, in the Romish, makes a part of the ceremony. The council of Trent, sess. xiv. cap. 3., declares the essence of the sacrament of penance to lie in the words of absolution. Among Protestants, absolution is chiefly used for a sentence, by which a person, who stands excommunicated, is released from that punishment. The formula of absolution in the Romish church has been said to be absolute, in the Greek church, deprecatory, and in the Protestant churches, declarative; but this is a matter strongly contested between Protestants and Romanists. The fathers of the church and the best modern theologians are unanimous in the belief, that God alone can forgive and deliver from sin; that a judicial power over the souls of Christians is conferred neither on priests nor teachers.

ABSTRACTION; an operation of the mind, by which we detach from our conceptions all those circumstances that render them particular, and thereby fit them to denote a whole rank or class of beings.

ABULFEDA; known by the name of Ismael, prince of Hamah, in Syria, surnamed the *victorious king*, and the *pillar of religion*. This Arabian, famous as a historian and geographer, was born at Damascus, in the year of the Hegira 672, A. D. 1273. He sprang from the family of the Ayubites, which had already given birth to the famous Saladin, and was re-

nowned for the valor of its members. While a youth, he distinguished himself in various campaigns. From his uncle he inherited the principality of Hamah; but, on account of a quarrel with his brother, he did not come into possession of it for several years; after which he remained undisturbed therein till his death, in the year of the Hegira 732, A. D. 1333. All writers who mention him represent him as a prince of the greatest talents, equally remarkable for courage and coolness in war, and for wisdom in council. Amid the cares of government, he devoted himself with zeal to study, drew the learned around him, and rendered his power and wealth subservient to the cause of science. He was well acquainted with history, jurisprudence, medicine, botany, mathematics and astronomy, and has bequeathed to us the fruits of his long inquiries in several valuable works, of which his history of the human race, and his geography, entitled, *The true Situation of Countries*, are the most famous. We have several partial translations and editions of them, viz. of the historical works, 1. *Annales Moslemici Arab. et Lat. Op. et Stud. Reiskii*, 1789—94, 5 vols. 2. *De Vita et Rebus gestis Mohammedis*, ed. Gagnier, 1723, to which Schultens has annexed an appendix. For portions of his geography, we are indebted to Grævius, Reiske, Muratori, Michaelis, Rink, Eichhorn, Rosenmüller, Paulus and Rommel. Abulfeda's own manuscript is at Paris. He is a trustworthy author, and his style is good.

ABYDOS; an ancient city of Asia, on the eastern side of the Dardanelles, famous for the bridge of boats, which Xerxes is related to have thrown here across the Hellespont, and for the loves of Hero and Leander. This city defended itself with great courage against Philip of Macedon. Another *Abydos* was an ancient town of Upper Egypt, which contained the palace of Memnon, and the celebrated temple of Osiris, built by Osymandes. Under Augustus, the town was reduced to ruins, but to the west of it, in the present village of El-Berbi, magnificent ruins are still found.

ABYLA; a mountain in Africa, one of the pillars of Hercules, as they were anciently called; being directly opposite to Calpe, (now Gibraltar,) in Spain, from which it is distant only 18 miles. Between these mountains are the straits of Gibraltar.

ABYSSINIA; an extensive kingdom of Africa, bounded on the east by the Red sea, on the north by Sennaar, on the west

and south partly by Sennaar and Kordofan, and partly by vast and barbarous regions, of which the names have scarcely reached us. Pinkerton makes Abyssinia 770 miles in length, and 550 in breadth. The number of inhabitants is from 4 to 5 millions, the greater part of whom are of Arabian extraction, mixed with Jews, Turks and Negroes. The ancients called this country, and some of the parts adjacent, in a peculiar sense, Ethiopia. They also gave the same name, indefinitely, to the interior of Africa, and even to a great part of Asia. The Ethiopian kingdoms, of which the ancients had any distinct knowledge, were two. The first, and the only one known to the earliest writers, is Meroe, or the Peninsula, which they supposed to be an island, formed by the successive union of the Nile with the Astaboras and the Astapus, (Blue River and Tacazze.) The chief city of Meroe was placed by them on the Nile, in lat. 16° 26'; and Bruce saw near Chendi, in Sennaar, immense ruins, which probably belonged to this ancient capital. The other kingdom was not known until the Greeks, under the successors of Alexander, had extended their navigation along the eastern coast of Africa. It was that of the Axumites, situated upon the Red sea, and occupying part of the Abyssinian province of Tigré. The capital, Axum, still remains, though in a state of decay. Its port, Adulis, was the channel by which the finest ivory then known was exported, and a commercial intercourse maintained with the coasts both of the Red sea and the Indian ocean.—The Abyssinians boast that their country was the Sheba of Scripture, and that it was converted to Judaism several centuries before the Christian era. It is much more certain, that, prior to the middle of the fourth century, the nation was converted to Christianity, which it has ever since professed. This is, however, more tinged with Judaism than among other nations. Boys and girls are circumcised; the Mosaic laws in regard to clean and unclean meats are respected; the seventh day is their Sabbath, and their altars have the form of the ark of the covenant. In their dogmas they follow the Monophysitic doctrine. (See *Monophysites*.) In the church service they use the Bible, with the apocryphal books, in the Tigré or Gheez language, which is their language of literature. Baptism and the eucharist are administered according to the ritual of the Greek church, of which they have all the festivals and fasts. It

is, however, peculiar to the Abyssinians, that persons of rank receive larger pieces of bread at the Lord's supper, and that no one is admitted to it before his 25th year, because they pretend that no one is accountable for sin before that age, and that all who die prior to it are sure of salvation. They consider the bodies of the dead as unclean, and hasten their interment. Their small, round, conical churches stand on hills, near running water, surrounded by cedars, and are full of pictures. During the service every body is obliged to stand, as in the Greek churches. The shoes are left at the door, and passing horsemen must dismount. The service, like that of the Greek church, consists in reading parts of the Bible and praying. The clergy, who are very ignorant, generally marry, and are distinguished by a cross, which they offer to passengers to be kissed. The head of the Abyssinian church is called *Abuna*, (our father,) and is generally taken from the Coptic priests, as the Abyssinians and the Copts keep up a communication with each other in Cairo. Under the *abuna* are the *kamosats*, or the chief priests of the secular clergy, the learned theologians and monks. The latter pretend to be of the order of St. Augustine, and are divided into two classes. The members of one, living unmarried, reside in wealthy convents; those of the others, with their wives and children, live around the churches, supported by agriculture. Both sorts, as well as the numerous nuns, travel about the country, trade in the markets, and do not appear scrupulously observant of their vow of chastity. The Abyssinian clergy have neither a particular dress nor peculiar privileges. A. is now divided into three separate states, Tigré, Amhara, and Efat. The *negus*, or *nagush*, as the king of all A. was called before its division, lives at Gondar, in Amhara, enjoying only a nominal sovereignty, and watched by the chief of that state. The pope has several times attempted to gain over A. An opportunity of reducing the Abyssinians to the Roman church was offered by their war with the Turks, in which the regent Helena sought assistance for David II., the minor *negus*, from the Portuguese, in 1516. In 1520, a Portuguese fleet, with soldiers and priests, arrived in A., and after the Turks and Gallas (a warlike, mountain people, in the south and west of A.) had been repulsed, by the assistance of the Portuguese, towards the end of the 16th century, the zealous Catholics obtained a footing, of

which the pope knew how to take advantage. He sent Jesuits to convert the inhabitants to the Roman Catholic religion, and a Portuguese colony supported their enterprise. In the beginning of the 17th century, the Roman Catholic ritual was introduced; the Jesuit Alphonso Mendez was elected patriarch of A., in 1626, the celebration of the 7th day as the Sabbath abolished, and the whole religious system accommodated to the Catholic model. But this favorable turn of affairs was of short duration. The negus Basilidas began his administration in 1632, by yielding to the wishes of the majority of the people, who were opposed to the Roman Catholic faith. He banished the monks with the patriarch, and ordered the Jesuits who remained to be hanged. Almost all the Catholic missionaries have since suffered death, and all the attempts of the Roman propaganda to establish the Catholic faith in A., until the end of the last century, have proved fruitless.—In the western part of this country, an independent government of Jews has long existed. They call themselves *Falashas*, that is, *exiles*; the state is called *Falashjan*. They have their own government, which is allowed by the negus, on consideration of their paying a certain tribute. Bruce found there a Jewish king, Gideon, and a queen, Judith.—The customs of the Abyssinians are described by Bruce and Salt as exceedingly savage. They eat the raw and still quivering flesh of cattle, whose roaring is to be heard at their feasts. A perpetual state of civil war seems the main cause of their peculiar brutality and barbarism. Dead bodies are seen lying in the streets, and serve as food to dogs and hyenas. Marriage is there a very slight connexion, formed and dissolved at pleasure; conjugal fidelity is but little regarded. The rulers are unlimited despots in ecclesiastical and civil affairs, disposing of the lives of their subjects at pleasure.—A. is full of high ranges of mountains, in which the Nile takes its rise. The climate, on the whole, is fine, and the soil exceedingly fertile. The vegetable and animal kingdoms are very rich, and afford many species peculiar to this country. One of the most important natural productions of A. is salt, covering a great plain, which occupies part of the tract between Amphilah and Massuah. The plain of salt is about four days' journey across. For about half a mile the salt is soft, but afterwards becomes hard, like snow which has been partially thawed, and consolidated. It is

perfectly pure: it is cut with an adze, and carried off by caravans. The country is rich in gold, iron, grain and fruits. Commerce is in the hands of the Jews, Armenians and Turks.

ACACIA, *Egyptian Thorn*, or *Binding Bean-tree*; in the Linnæan system, a species of *mimosa*. The flowers of this plant are used, by the Chinese, to produce that yellow color, which we see in their silks and stuffs. They make a decoction of the dried flowers, and add alum and calcined oyster-shells. In the materia medica, *acacia* is the inspissated juice of the unripe pods of the *mimosa nilotica* of Linnæus.

ACADEMY; an association of scholars or artists, for the promotion of the sciences or arts, sometimes established by government, sometimes voluntary unions of private individuals. The academies at Paris, Stockholm and Berlin, are in part institutions for the purpose of instruction; but at first their only object was the one above-mentioned. The members of an academy either select their own branches of study, or pursue those which the government assigns to them. The results of their labors are read in the regular meetings, and printed among their proceedings. The name is derived from the Athenian academy, belonging to a certain Academus, a famous school for gymnastic exercises, and the place where Plato taught. The appellation *academy* is also used to denote the various philosophical sects, whose doctrines were taught in that institution. In this sense we speak of the first, second and third academies; the founders of which were Plato, Arcesilaus and Lacydas or Carneades. The first institution of antiquity, which merits the name of academy, in the modern sense of the term, was at Alexandria. Attracted by the generosity of the Ptolemies, a numerous association of scholars was collected here, who were to have labored for the extension and perfection of human knowledge, but soon fell into idleness, or the exercise of grammatical subtleties. From Alexandria the Jews borrowed the custom of founding academies, which were established, after the close of the first century, in the cities on the Euphrates, Sora, Neharda and Punebedita. From them the Nestorians learned, in the sixth century, to value science, and imparted the same spirit to the Arabs, whose excellent caliphs, Almansor, Harun al Raschid and Almamun, founded a number of academies, which were extended from Cordova to Bochara in the farthest east, with the greatest suc-

cess. At the court, too, of Charlemagne, we find an academy, founded by the emperor, at the suggestion of his instructor Alcuin, of which he was himself a member. This useful institution was dissolved after the death of Alcuin, and we afterwards find no academies, properly so called, till the time of the conquest of Constantinople by the Turks, when several Grecian scholars were compelled to fly to Italy. Lorenzo de' Medici then founded, at Florence, the first Grecian academy, under the care of Argyropylus, Theodore Gaza, and Chalcondylas. Cosmo afterwards established the Platonic academy, the object of which was the study of the writings of Plato, and the restoration of his philosophy. These establishments did not subsist long, but their places were filled by others of a more general character, which spread themselves over all the cities of Europe. We will arrange the most important older ones, that still exist, according to the subjects to which they are devoted.

General scientific academies. The *Accademia Secretorum Naturæ*, founded at Naples in 1560, for the promotion of the mathematical and physical sciences, was abolished by the papal interdict. It was followed by the *Accademia dei Lincei*, founded at Rome, by prince Cesi, about the end of the same century; of which Galilei was a member. The *Accademia del Cimento* arose in the beginning of the 17th century, under the patronage of prince Leopold, afterwards cardinal de' Medici, and numbered among its members Paolo di Buono, Borelli, Viviani, Redi, Magalotti and other distinguished men. The *Accademia degl' Inquieti*, at Bologna, afterwards incorporated with the *Accademia della Traccia*, published several excellent treatises under the title *Pensieri Fisico-Matematici*, 1667. In 1714, it was united with the Institute at Bologna, and has since been called the *Academy of the Institute*, or the *Clementine Academy*, (from Clement XI.) It possesses a large collection of natural curiosities and a numerous library. The Academy of Sciences at Bologna, or the Institute of Bologna, was established in 1712, by count Marsigli. (See *Bologna*.) In 1540, an academy was established at Rossano, in the territory of Naples, under the name *Società Scientifica Rossanense degl' Incursori*, at first for the belles lettres, but since 1695 for the sciences also. The Royal Academy at Naples has existed since 1779. Its publications contain some instructive disquisitions on mathematical subjects. Of the Italian academies, we

would also mention those at Turin, Padua, Milan, Sienna, Verona, Genoa, all of which have published their transactions. Italy may be called the mother of academic institutions. Jarkius enumerates 550 of them in his catalogue.—The French Academy of Sciences at Paris, *Académie Royale des Sciences*, founded in 1666, by Colbert, received the royal ratification in 1699. The members were divided into four classes—honorary members, active members or pensionaries (receiving salaries), *associés* and *élèves*. The first class was to contain ten, and each of the three others twenty persons. The president was appointed by the king out of the first class. From the second, a secretary and treasurer were selected. The duke of Orleans, when regent, abolished the class of *élèves*, and substituted for it two new classes, the one of which comprised twelve adjuncts, and the other, six *associés*; to which latter class no particular branch of science was assigned. A vice-president was to be appointed annually by the king from the first class, and a director and sub-director from the second. In 1785, the king added classes for natural history, agriculture, mineralogy and physics; so that the whole now consisted of eight classes. He also incorporated the *associés* and the adjuncts (*adjoints*). This academy has rendered many services to science, especially by the measurement of a degree of the meridian. Since 1699, it has, with a few late exceptions, annually published a volume of its transactions, which constitute a series of 139 volumes. Rouille de Meslay founded two prizes, which the academy annually distributed; the first, of 2500 livres, for the promotion of physical astronomy; the second, of 2000 livres, for that of navigation and commerce. In 1793, the academy was abolished; and the National Institute took its place, and that of the other academies; but they were restored by Louis XVIII. Important academies, besides those of Paris, still exist in the principal cities of France, e. g. at Caen, since 1705; at Toulouse, the first volume of whose transactions appeared in 1782; at Rouen, since 1736; at Bordeaux, since 1703; at Soissons, since 1674; at Marseilles, since 1726; at Lyons, since 1700; at Montauban, since 1744; at Amiens, since 1750; at Dijon, since 1740; etc.—An Academy of Arts and Sciences was founded in Berlin in 1700, by king Frederic I; some changes were made in 1710, principally relating to the presidency. The members were divided into four classes; the first were to devote

themselves to natural philosophy, medicine and chemistry; the second to mathematics, astronomy and mechanics; the third to the history and language of Germany; the fourth to oriental literature, with a view to the conversion of the heathen. Each class chooses a director for life. The first president was the famous Leibnitz. The institution began truly to flourish under Frederic II, who invited distinguished scholars from foreign countries, and appointed Maupertuis president. Public sessions were held semi-annually, on the birth-day of the king, and the anniversary of his accession to the throne. In the latter, a prize medal of 50 ducats is adjudged to him, who has best answered the question proposed by the academy. Since that time, their transactions have appeared in a series of volumes, under the title *Mémoires de l'Académie Royale des Sciences et Belles Lettres à Berlin*. They are now, however, always published in the German language. New alterations were made in 1798, in order to give a more useful direction to the labors of the academy: among other things, the royal library and the cabinet of arts were united with it.—At Manheim, in 1755, the elector, Charles Theodore, established an academy, according to the plan of Schöppflin. It consisted, at first, of two classes, the historical and physical; the latter was divided, in 1780, into the physical, properly so called, and the meteorological. The transactions in the departments of history and physic have appeared under the title *Acta Academiae Theodoro-Palatinae*; in the branch of meteorology, under the title *Ephemerides Societatis Meteorologicae Palatinae*.—The academy at Munich has existed since 1759, but was much enlarged when Bavaria was exalted to a kingdom. Its memoirs are entitled *Abhandlungen der bayerschen Akademie*.—Peter the Great had projected the establishment of the Imperial Academy of Sciences at St. Petersburg, and consulted Wolf and Leibnitz on the subject; but his death prevented the execution of his project, which was completed by Catharine I. Its first sitting was held Dec. 1725. The empress appropriated about 30,000 roubles a year for the support of the academy; fifteen distinguished scholars in different departments received pensions as members, with the title of professors. The most famous of them were Nicholas and Daniel Bernouilli, the two de Lisle, Bulfinger and Wolf. Under Peter II, the academy languished; but revived under the empress Anna, and declined again after her death. Under

Elizabeth, it flourished anew. It was enlarged and improved, and an academy of arts added in 1747, which was separated again in 1764. Its annual income amounts to 60,000 roubles. This academy has contributed much to a more accurate knowledge of the interior of Russia, by sending men like Pallas, Gmelin, Stolberg, Guldenshtadt and Klaproth, to travel through single provinces, and has thereby given rise to some excellent works. The number of active members, besides the president and director, amounts to fifteen. In addition to these, there are four *adjuncts*, who attend the sittings, and are admitted, on the first vacancies, to the rank of members. The academy has an excellent collection of books and manuscripts, a valuable cabinet of medals, and a rich collection in natural history. Its transactions appeared from 1728 to 1747, during which period they amount to 14 volumes, under the title *Commentarii Academiae Scientiarum Imperialis Petropolitanae*. From that time till 1777, they were published under the title *Novi Commentarii*, in 20 volumes. They were subsequently entitled *Acta Academiae*, and at present the new series is called *Nova Acta*. The *commentarii* are all in Latin; the *acta* are partly in Latin, partly in French.—The Royal Academy of Sciences at Stockholm originated in a private association of six learned men, among whom was Linnæus, and held its first session June 23, 1739. In the same year appeared its first memoirs. The association soon attracted public attention, and, March 31, 1741, the king conferred on it the name of the Royal Academy of Sweden. It receives, however, no pension from the crown, and is conducted by its own members. A professor of experimental philosophy only, and two secretaries, are paid from the funds of the society, which are considerable, arising from legacies and donations. The presidency is held in turn by the members residing at Stockholm, each one remaining in office three months. The treatises read in the sittings appear quarterly. The first forty volumes, till 1779, are called the Old Transactions; the subsequent volumes are called the New. The papers relating to agriculture appear under the title *Economica Acta*. Prizes consisting of money and gold medals are annually offered.—The Royal Academy at Copenhagen sprang from a society of six literary men, to whom Christian VI committed, in 1742, the care of his cabinet of medals. They subsequently enlarged

their plan, so as to form a regular academy. One of these literary men was the count of Holstein, at whose suggestion Christian VI took the academy under his protection in 1743, endowed it with a fund, and directed the members to extend their studies to natural history, physics, and mathematics. It has published fifteen volumes, in the Danish language: some of these have been translated into Latin.—The Royal Irish Academy at Dublin was formed, in 1782, mostly of the members of the university, who assembled weekly. Its transactions have appeared regularly since 1788. As early as 1683, there was an academy in Dublin, but, owing to the distracted state of the country, it soon declined. In 1740, a Physico-Historical Society was instituted there, which published two volumes of transactions, still extant. This also soon declined.—In Lisbon, the late queen established an academy of science, agriculture, arts, commerce and economy in general, consisting of three classes; those of natural science, mathematics and national literature, and comprising sixty members. It has published *Memorias de Letteratura Portugueza*, *Memorias Economicas*, together with scientific transactions and a *Collecção de Livros ineditos de Historia Portugueza*.

Academies for the promotion of particular departments of science.—1. *Medical.* The *Academia Naturæ Curiosorum*, at Vienna, called also Leopold's Academy, was formed in 1652. At first, it published its treatises separately, but after 1684, in volumes. Under Leopold I, who favored it in a high degree, it adopted the name *Cæsareo-Leopoldina Naturæ Curiosorum Academia*. Similar academies were established at Palermo, 1645, in Spain, 1652, at Venice, 1701, and at Geneva, 1715.—2. *Surgical.* A surgical academy was established at Paris, 1731, which proposes annually a prize question. The prize is a gold medal of the value of 500 livres. A surgical academy was founded at Vienna in 1783. Three prize medals, each of the value of 50 guilders, are yearly adjudged to the most successful students.—3. An academy of *theology* was established, in 1687, at Bologna.—4. Coronelli founded, in the beginning of the 18th century, a *geographical* academy at Venice, under the title of the Argonauts: the object is to publish good maps and descriptions of countries.—5. *Historical.* King John V founded, in 1720, a royal academy of Portuguese history at Lisbon, consisting of a director, four censors, a

secretary, and fifty members: the subject of their study is the ecclesiastical and political history of Portugal. In Madrid, an association of scholars was instituted about 1730, for the purpose of investigating and explaining the historical monuments of Spain. It was formed into an academy by king Philip V, in 1738. It consists of 24 members, and has published several ancient historical works; some for the first time, some in new editions. The Academy of Suabian History, at Tübingen, was established for the purpose of publishing the best historical works, and the lives of the best historians, as well as for compiling new memoirs.—6. For the study of *antiquities*. An academy exists at Cortona, in Italy, for the study of Etrurian antiquities; another at Upsal, in Sweden, for the elucidation of the northern languages, and the antiquities of Sweden. Both have published valuable works. The academy which Paul II established in Rome, for the same purpose, soon came to an end, and the one founded by Leo X met with the same fate, after it had flourished some time. Others, less important, rose on their ruins. But all similar institutions were surpassed by the *Académie des Inscriptions*, at Paris, founded by Colbert, in 1663, for the study of ancient monuments, and for the perpetuation of the remarkable occurrences of their own country, by means of medals, statues, inscriptions, &c. At first, it had but four members, who were chosen from those of the French academy; but in 1701, the number was fixed at ten honorary members, ten *associés*, ten *pensionnaires*, and ten *élèves*. They met semi-weekly in the Louvre, and held every year two public sessions. The class of *élèves* was finally abolished. The king annually appointed their president and vice-president. The secretary and treasurer held their offices for life. Their memoirs (from 1701—93) constitute 50 volumes, in 4to. It experienced the fate of all the French academies, and is now restored. The Herculanean Academy was instituted at Naples, in 1755, by the minister Tanucci, to explain the ancient monuments found in Herculaneum, Pompeii, &c. Their labors have appeared, since 1775, under the title *Antichità di Ercolano*. In 1807, Joseph Buonaparte founded an academy of history and antiquities at Naples, which has fallen into decay. The academy founded in the same year at Florence, for the explanation of Tuscan antiquities, has published some volumes of memoirs. In the same year,

likewise, a Celtic academy was established at Paris, the objects of which were the elucidation of the history, manners, antiquities and monuments of the Celts, especially those in France; also, researches into the etymology of all European languages by the aid of the Celto-Breton, Welsh and Erse dialects; together with investigations respecting the Druidical worship. Lenoir is its president. Its transactions appear under the title *Mémoires de l'Académie Celtique*.—7. For the improvement of language. The *Accademia della Crusca*, or *Accademia Purpuratorum*, was formed in 1582, and first attracted attention by its attacks on Tasso. Its principal merit consists in having compiled an excellent dictionary, and edited with care several of the ancient poets of Italy. The *Académie Française*, formed in 1629, was then a private association; six years after, it was raised by Richelieu to the dignity of an academy of the French language, grammar, poetry and eloquence. The number of members was fixed at 40, and from them a director and a chancellor were elected every two months, and a secretary for life. Besides many other valuable works, it has published a dictionary of the French language, (first edition in 1694.) At Madrid, the duke of Escalona founded an academy for the improvement of the Spanish language, in 1714, which the king endowed with various privileges. It has done much towards purifying and perfecting the language, especially by the compilation of a dictionary. In Petersburg, an academy for the improvement of the Russian language was founded in 1783, and united with the academy of sciences. In Sweden, also, a royal academy of language was instituted in 1789.—Many literary societies are distinguished only by name from academies. Such are the Royal Society of Sciences, at Göttingen, founded in 1750; the Royal Society of England, founded in 1645. This society has made observations and experiments on most of the works of nature; has improved agriculture, navigation, naval, civil and military architecture, &c. It has registered experiments, observations, &c., and, from time to time, published the most valuable, under the title of Philosophical Transactions. The Royal Society of Dublin, for the encouragement of husbandry and the arts, established in 1731, has been one of the most active establishments of the kind in Europe. The Royal Society of Edinburgh was established in 1783. Besides these, there

are the Society of Antiquaries of London, 1751; the Literary and Philosophical Society of Manchester, 1781; the literary associations of Haarlem, Flushing, Rotterdam, Brussels, Amsterdam, Copenhagen, Upsal, &c. From Europe they have spread to the other quarters of the globe. In Asia there has been a society of arts and sciences, at Batavia, since 1778; a society of sciences at Calcutta, in Bengal, since 1784; and one at Bombay, to which we are indebted for the most important information respecting India and other parts of the East. The principal learned academies and societies in the U. S. of America, are the following: 1. The American Philosophical Society, Philadelphia, founded in 1769. This society has published nine volumes, 4to., of Transactions. In 1815, it appointed a large committee to superintend a historical department, which has published one vol. 8vo. 2. The Massachusetts Historical Society, Boston, founded in 1791. It has printed 22 vols., 8vo., of Collections. 3. The Connecticut Academy of Arts and Sciences, New Haven, founded in 1799, has published one vol. of Transactions. 4. The American Academy of Arts and Sciences, Boston, founded in 1780, has published four vols., 4to., of Transactions. 5. The Historical Society of New York, founded in 1809, has published four vols., 8vo., of Collections. 6. The Literary and Philosophical Society of New York, founded in 1815, has published two vols., 4to., of Transactions. 7. The Academy of Natural Science, Philadelphia, founded in 1818, has published five vols., 8vo. 8. The Lyceum of Natural History, New York, founded in 1818, has published two vols., 8vo. There are, besides, the Historical Society of Concord, New Hampshire, the Essex Historical Society, Salem, Massachusetts, the Columbian Institute, at Washington, D. C., and some others; but their publications have been few.

Academies devoted to the promotion of the fine arts sprung up in the middle of the 16th century. The academy of Paris has been a model for many subsequent institutions of a similar character. The earliest union of painters, for objects similar to those of modern academies of art, was the fraternity, formed at Venice, in 1345, under the name of *San Luca*, which sprung from a society under the patronage of St. Sophia. However, neither this nor the society of *San Luca*, established at Florence, in 1350, bore the name of an academy. The *Accademia di San Luca*, founded at Rome, in 1593, by Frd.

Zuccherò, first obtained a settled character in 1715. The academy at Milan may have preceded the time of Leonardo da Vinci, who is generally regarded as its founder. The academies of Bologna, Parma, Padua, Mantua, Turin, are all of recent origin, and have never obtained the importance which such institutions acquire in large capitals, where the finest works of art serve as guides and incentives to genius. The Academy of Painting at Paris was established by Louis XIV, in 1648, and the Academy of Architecture by Colbert, in 1671. This latter now exists under the name of *École Spéciale des Beaux Arts*, and is divided into departments, in a way which might serve as a model. Since 1391, the painters of Paris have been united in a society called the Fraternity of St. Luke, which has received charters from several kings. Among the towns of France, Bordeaux had the earliest academy. We now find one in almost every town of consequence. The French academy at Rome, in the Villa Medici, is a branch of the academy of Paris. Nuremberg had the first establishment of this kind in Germany. Its academy, founded by Sandrart, 1662, and long conducted by him, gained new distinction from the celebrity of Preissler. The academy of Berlin was founded in 1694, was remodelled and received a fresh impulse in 1786; that of Dresden, established in 1697, was united with those of Leipzig and Meissen, in 1764, and has still the form given it by Hagedorn. The academy of Vienna was founded by Joseph I, and completed by Charles VI, in 1726; that of Munich was established in 1770; those of Düsseldorf and Mannheim are more valuable now than they were originally. Weimar, Cassel, Frankfurt, Bern, should not be omitted in this enumeration. The Academy of Painting at Madrid had its origin in 1752; the Royal Academy of Painting at London, in 1768. Lately, a branch of the London academy has been established at Rome, which, we have reason to hope, will prove more useful than the parent society. Edinburgh has possessed a similar society since 1754. At Brussels, Amsterdam, Antwerp, there are distinguished academies. Stockholm has had, since 1733, an academy of the fine arts, founded by count Tessin. Since 1738, one has existed at Copenhagen, but its privileges were conferred on it in 1754. This academy has exercised an important influence. The academy of Petersburg was founded in 1757, and extended in 1764. Its

influence in awakening diligence and enterprise among the Russian artists has been lately very apparent.—For schools of music, see *Conservatory*.

ACADEMY. (See *Plato*.)

ACADIA, the English, and ACADIE, the French spelling of the Indian name of Nova Scotia. *Shuben-acadie* is the present name of the principal river of Nova Scotia; *shuben*, in the Indian dialect of the country, signifying *river*. (See *Nova Scotia*.)

ACANTHUS; the name of an ancient town in Egypt, also of one in Caria, and another in Macedonia (near mount Athos), &c.—Also, a genus of plants (commonly called *bear's-breech*), of the order *angiospermia*, class *didynamia*. The leaves of the A. are large, and very beautiful. It grows wild in Italy.—In architecture, an ornament resembling the leaves of the acanthus, used in the capitals of the Corinthian and Composite orders.

ACAPULCO is the best Mexican harbor on the Pacific ocean; lon. 98° 50' W., lat. 16° 50' N.; pop. mostly people of color. Both the harbor and the roadstead are deep, with a secure anchorage from storms. It is the most considerable port on the S. W. side of Mexico. Heavily-laden ships can lie at anchor, close to the granite rocks, which environ the roadstead and harbor. On account of the steepness of these rocks, the coast has a wild and barren appearance. At the entrance of the harbor is situated an island, Roqueta or Griso, which forms a western entrance of 700 or 800 feet broad, and an eastern, a mile or a mile and a half broad, and from 24 to 33 fathoms deep. On the north-west lies the city, defended by fort San Diego, situated on an eminence. It has not more than 4000 inhabitants, mostly people of color. The number used to increase much on the arrival of the galleon from Manila. Few commercial places have a more unhealthy situation. The usual heat in the day is from 86 to 90° Fahrenheit; in the night, till 3 o'clock, A. M., 78°, and from that time till sunrise, 64 to 62°. The sun's rays are reflected by the white rocks upon the city, where no creature is comfortable, except the musquitoes. To procure fresh air, the Spanish government caused a passage to be cut through the rocks on the east; but neglected, what was far more necessary, to drain and dike the morass, on the same side, situated most favorably for the culture of the sugar-cane. About the middle of the dry season, the water disappears, and the

effluvia of putrid substances infect the air. Here the yellow fever of the West Indies, and the cholera morbus of the East Indies, sweep away many strangers, and especially young Europeans. The calms, under the line, which frequently continue for a long time, are a natural obstacle, which renders a voyage from Callao to Acapulco more difficult, and often longer, than one from Callao to Cadiz. Steam-boats would be of great advantage in this quarter. In order to take advantage of the trade-winds, it is especially necessary to keep at a distance from the line. This, however, is impracticable on a coasting voyage from Acapulco to Callao. The exports hitherto from Acapulco have been mostly silver, indigo, cochineal, Spanish cloth, and some peltry, which comes from California and the northern part of Mexico. The imports consist of all the valuable productions of Asia.

ACARNANIA, now called *Il Carnia* and *Il Despotato*; an ancient country of Epirus, divided from Ætolia by the Acheulons.

ACATHOLICI are, in general, those who do not belong to the Catholic church. In certain Catholic countries, Protestants are distinguished by this name, which is considered less odious.

ACBAR. (See *Akbar*.)

ACCELERATION. (See *Mechanics*.)

ACCENT; the law which regulates the rising and falling of sounds or tones. Music and language, which are subject to this law, both originate in the feelings; and, although they at last separate from each other, and music remains the language of the heart, while speech, or language, properly so called, becomes the language of the mind, yet the latter does not entirely cease to speak to the heart; and music and language thus retain certain qualities in common; these are partly internal and partly external. Both are adapted to the expression of emotions; and thence arise the movements, sometimes slow and sometimes quick, which we perceive in them. They thus become subject to quantity or time; and we distinguish sounds, with reference to quantity, into long and short. In order to express an emotion distinctly and plainly, there must be a suitable arrangement of the organs for the sounds intended to be produced; for, in a series of sounds measured by the relation of time, and regulated also by relation to some fundamental tone, there will be found a certain connexion and association, which

represent the emotions in their various relations and gradations; it is this also, which distinguishes correctly what is of primary importance from what is secondary, renders the unimportant subordinate to the important, and gives proper weight to that which is significant. A succession of tones thus becomes a musical composition, which comprehends in itself a definite meaning or sense; and, to express this, particular regard must be had to the signification and importance of single tones in connexion. The stress, which is laid on the tones, according to the gradations of meaning, constitutes what we call *accent*. We distinguish the *acute*, or rising accent, the *grave*, or falling, and the *circumflex*. The circumflex accent falls on those syllables or tones which are long in themselves; the grave properly denotes merely the absence of any stress; and thus we have only the acute left, to give a designation to tones. The reasons for designating a tone by accent, and dwelling on it longer than its established quantity requires, are either mechanical, rhythmical, or emphatical. We divide accent into grammatical and rhetorical, or the accent of words and of sentences, which last is called *emphasis*. The former rests on physical or mechanical causes; the latter has for its object the relations of ideas. The laws which govern both are briefly the following: A syllable or tone of the natural length receives the grammatical or verbal accent; but there are two causes, which distinguish some syllables of a word from the rest—their mechanical formation and their signification. In the word *strengthen*, for instance, mechanical causes compel the voice to dwell longer on the first syllable than on the second, and hence a greater stress is laid on that syllable. Rhetorical accent, or emphasis, is designed to give to a sentence distinctness and clearness. In a sentence, therefore, the stress is laid on the most important word, and in a word, on the most important syllable. Without attaching itself, in language, to the quantity of a word, or, in music, to a certain part of a bar, the accentual force dwells on the important part; and, in order that this force may be rendered still more distinguishable, it hastens over those parts, which, though otherwise important, the context renders comparatively unimportant. It follows, from what has been said, that the accent of words and the accent of sentences, or emphasis, may be united or separated at pleasure. It may now be asked,

whether emphasis destroys verbal accent and quantity; and whether, for this reason, euphony does not suffer from emphasis. In answering this question (in which lies the secret of prosody in general, and the difference between the modern and ancient), four points come under consideration: 1. If the accent coincides with a syllable which is long from mechanical causes, it elevates the syllable, and imparts stress to its prosodial length. 2. The accent does not render an invariably long syllable short, but deprives it, if it immediately follows the accented syllable, of a portion of its length. The quantity, therefore, if it does not coincide with the accent, may be somewhat weakened by it. 3. Although the accent cannot render an invariably long syllable short, it can change the relative quantity of common syllables. 4. The accent can never fall on syllables invariably short. These are the rules which are of the greatest importance, not only to the versifier, but also to the declaimer, and to the actor, so far as he is a declaimer.

The grammatical and rhetorical nomenclature of the English language is very defective and unsettled; and hence has arisen a great degree of confusion among all our writers on the subject of accent and quantity in English. We have perverted the true meaning of *long* and *short*, as applied to syllables or vowels; and, by our peculiar application of those terms, we have made ourselves quite unintelligible to foreign nations, who still use them according to their signification in the ancient languages, from which they are derived. An English writer of some celebrity (Foster, on Accent and Quantity), whose own work, however, is not free from obscurity, observes, that he has found the word *accent* used by the same writer in four different senses—sometimes expressing elevation, sometimes prolongation of sound, sometimes a stress of voice compounded of the other two, and sometimes the artificial accentual mark. For a long series of years, however, *accent*, as Johnson has remarked, in English prosody, has been the same thing with *quantity*; and another English writer of celebrity, bishop Horsley, observes, that it is a peculiarity of the English language that quantity and accent always go together, the longest syllable, in almost every word, being that on which the accent falls. In other languages, as Mitford justly remarks (Essay on the Harmony of Language), generally, the vowel character, representing indifferently a long or a short

sound, still represents the *same* sound, long or short. A contrary method is peculiar to English orthography. With us, the same vowel sound, long and short, is rarely represented by the same character; but, on the contrary, according to the general rules of our orthography, each character represents the long sound of one vowel and the short sound of another. This is eminently observable, as Dr. Johnson has remarked, in the letter *i*, which likewise happens in other letters, that the short sound is not the long sound contracted, but a sound wholly different. In addition to the difficulties arising from an imperfect nomenclature, as above remarked, there is an intrinsic difficulty in the extreme delicacy of the distinctions of tone, pitch and inflections in language, and the want of an established notation, corresponding to that which we have in music; and, we may add, in the words of Hermann (De Emendanda Ratione Græc. Gram.), “*Quam pauci vero sunt, qui vel aliqua polleant aurium subtilitate ut vocum discrimina celeriter notare apteque exprimere possint!*”—The Chinese are said to have but 330 spoken words; but these, being multiplied by the different accents or tones which affect the vowels, furnish a language tolerably copious.

ACCEPTANCE. (Law.) An acceptance is an engagement to pay a bill of exchange according to the tenor of the acceptance, and a general acceptance is an engagement to pay according to the tenor of the bill. What constitutes an acceptance is, in many cases, a nice question of law; but the general mode is for the acceptor to write his name on some conspicuous part of the bill, accompanied by the word *accepted*. In France, Spain, and the other countries of Europe, where oral evidence in matters of contract is not admitted to the same extent as in England, a verbal acceptance of a bill of exchange is not valid.

ACCESSARY, or ACCESSORY; a person guilty of an offence by connivance or participation, either before or after the act committed, as by command, advice, or concealment, &c. In high treason, all who participate are regarded as principals. Abettors and accomplices also come, in some measure, under this name, though the former not strictly under the legal definition of accessaries. An abettor is one who procures another to commit an offence, and in many, indeed in almost all cases, is now considered as much a principal as the actual offender. An accomplice is one of many persons

equally concerned in a felony. The name is generally applied to those who are admitted to give evidence against their fellow-criminals, for the furtherance of justice.

ACCLAMATION (*acclamatio*); in Roman antiquity, a shouting of certain words by way of praise or dispraise. In ages when people were more accustomed to give full utterance to their feelings, acclamations were very common, wherever a mass of people was influenced by one common feeling. We find, therefore, acclamations in theatres, senates, ecclesiastical meetings, elections, at nuptials, triumphs, &c. The senate of Rome burst into contumelious acclamations after the death of Domitian and Commodus. The theatrical acclamations were connected with music. Nero, who was as fond of music as of blood, ordered 5000 soldiers to chant acclamations when he played in the theatre, and the spectators were obliged to join them. In the corrupt period of the Roman empire, the children and favorites of the emperors were received with loud acclamations, as the French emperor was greeted with *Vive l'empereur!* and the French king is with *Vive le roi!* The Turks have a custom somewhat similar, at the sight of their emperor and grand viziers. The form among the Jews was *Hosanna!* The Greek emperors were received with *Αγαθη τυχη!* (good luck), or other exclamations. Before a regular system of voting is adopted, we find its place supplied, among all nations, by acclamations. So Tacitus informs us that the Germans showed their approbation of a measure by clashing their shields and swords. The bishops, in the early times of Christianity, were long elected by acclamation. In the course of time, acclamations were admitted into the churches, and the people expressed their approbation of a favorite preacher by exclaiming, *Orthodox! Third apostle! &c.* They seem to have been sometimes used as late as the age of St. Bernard. The first German emperors were elected by acclamation at a meeting of the people in the open air; and the Indians, in North America, show their approbation or disapprobation of proposed public measures by acclamations.

ACCOLADE, a word derived from barbarous Latin, is composed of *ad*, to, and *collum*, neck, meaning, originally, an embrace. It signifies an ancient ceremony used in conferring knighthood. Antiquaries are not agreed wherein the accolade consisted. Some think it signifies

the embrace or kiss, given by the person who conferred the honor of knighthood. It is more probable that it consisted in an imitation of a blow on the neck, or on the cheek, signifying that this should be the last blow which the new-made knight should endure. The ceremony of striking the candidate with the naked sword, which afterwards took the place of the blow with the hand, had the same meaning. The Roman master also gave a blow to his slave, at the time of his emancipation, which, therefore, was called *manumission*; and in those parts of Germany where the ancient corporations of mechanics still continue, the apprentice receives a blow from the oldest journeyman, when his apprenticeship is at an end. The blow or stroke was in use among all Christian nations of the middle ages in conferring knighthood. (See *Chivalry*.)

ACCOMMODATION; properly, the adaptation of one thing to another; in philosophy, the application of one thing by analogy to another. It is also used in theology; thus, a prophecy of Scripture is said to be fulfilled improperly, or by way of accommodation when an event happens to any place or people similar to that predicted of another. Some theologians also say that Christ said many things to his disciples by way of accommodation, viz. entering into their views, and telling them only what they were capable of understanding. Others think this theory inconsistent with the purity of Christ. A., in law, is used for an amicable agreement or composition between two contending parties. These accommodations are frequently effected by means of compromise and arbitration.

ACCOMPANIMENT, in music, (French, *accompagnement*; Italian, *accompagnamento*), is that part of music which serves for the support of the principal melody (solo or obligato part). This can be executed either by many instruments, by a few, or even by a single one. We have, therefore, pieces of music with an accompaniment for several, or only for a single instrument. The principles on which the effect of the accompaniment rests are so little settled, that its composition is perhaps more difficult than even that of the melody, or principal part. Frequently, the same musical thought, according to the character of the accompaniment, produces a good or bad effect, without our being able to give a satisfactory reason for the difference. Hitherto, the Italians have been most distinguished for

expressive accompaniments contained in a few notes, but productive of great effect. In this respect, the Italian music generally surpasses the German and French, as it never weakens the effect of the principal part by means of the accompaniment. The French are far behind both the other nations, in respect to this part of composition, as they frequently estimate the effect by the quantity of notes. The accompaniment requires of the performer the most scrupulous study, and of the composer the greatest care and delicacy. The accompaniment of various solo instruments, e. g. the violin, flute, piano, &c. is extremely difficult, and to give it full effect requires great knowledge and skill. The Italian composers accordingly consider a piano accompaniment for a full orchestra, especially in the recitativo, (q. v.) as a great problem, which they have labored zealously to solve. As the object of every musical accompaniment is to give effect to the principal part, the accompanier should always aim to support, and by no means to overpower and oppress it. Of all composers, Mozart, even in respect to the accompaniments, claims the first place for the simplicity and beauty with which he amalgamates the leading and accompanying parts, through his unrivalled knowledge and excellent management of the parts for every individual instrument.

ACCORD. (*Mus.*) (See *Concord*.)

ACCORD; in common law, an agreement, between two or more persons, to give and accept satisfaction for an offence or trespass committed, which becomes a bar to a suit.

ACCOUCHEMENT (French); the delivery of a woman in child-bed.

ACCUM, Frederic, a German, from the Prussian province of Westphalia, went to London in the year 1803, where he delivered a course of lectures on chemistry and experimental physics, the basis of which was the discoveries of Priestley and other English chemists. He formed a connexion with Rudolf Ackermann, a German artist in London, to promote the general use of gas for lighting cities, and his work "On Gas Lights" was mainly instrumental in producing the extensive use of gas-lights in London, and all the great cities of England. He subsequently published a manual of practical chemistry, which is in high estimation in England. He was suspected of having purloined from the "Royal Institution," the library and reading-room of which were, in part, committed to his care,

plates and treatises; and the accusation of the overseer of this institution bore hard upon him in a court of justice; still nothing could be legally proved against him. For several years, A. has lived in Berlin, where he has received an appointment.

ACCUMULATION. (See *Capital*.)

ACCUSATION (from the Latin *ad*, to, and *causari*, to plead); an assertion, imputing to some person a crime, or a fault: in law, a formal declaration, charging some person with an act punishable by a judicial sentence. In Rome, where there was no *calumniator publicus*, no attorney-general, every one was permitted to prosecute crimes of a public nature. Therefore accusations very often took place against innocent persons, on which account it was not considered at all disreputable to be accused. Cato is said to have been accused 42 times, and as often absolved. Also in Prussia and Austria there exists, according to the codes of these countries, no public accuser. The courts accuse, try and sentence upon information received from the police, to which private individuals apply. This is called the process by inquisition, in contradistinction to process by accusation or appeal. In the common law of Germany, the process of appeal, in which the person injured appears as the accusing party, is not general, yet not abolished. (See *Criminal process*.) For accusation in England and France, see *Jury*. At Athens, if an accuser had not the fifth part of the votes on his side, he was obliged to pay a fine of a thousand drachmas. Æschines, who accused Ctesiphon, was condemned to pay this fine. At Rome, a false accuser was branded with the letter K on his forehead, (used for C, i. e. *Calumniator*.) The accuser was also watched to prevent his corrupting the judges or the witnesses. The Spanish inquisition forces the suspected person to accuse himself of the crime objected to him. In France, peers are to be accused of crimes only before the chamber of peers, and the chamber of deputies alone has the right to accuse ministers, as such, before the peers. Accusing, in these cases, is called *impeaching*. In the United States, any officer of government, the president not excepted, is impeachable, and the constitution provides the accuser and the judges. In no monarchy can the king be brought to trial for a crime, though, in some cases, his conduct may be such as to amount to a virtual abdication of the throne. Blackstone says, "When king

James II invaded the fundamental constitution of the realm, the convention declared an abdication, whereby the throne was rendered vacant, which induced a new settlement of the crown. And so far as this precedent leads, and no farther, we may now be allowed to lay down the law of redress against public oppression."

ACELDAMA (Heb., a field of blood); the field purchased by the Jewish rulers with the 30 pieces of silver which Judas returned to them in despair, after betraying Christ. This field they appropriated as a burial-place for strangers. The place is still shown to travellers. It is small, and covered with an arched roof. The bodies deposited in it are, it is said, consumed in three or four days, or even less time.

ACEPHALI (headless); several sects of schismatics in the Christian church, who rebelled against their Christian head, or refused to acknowledge any; for example, the *monophysite* monks and priests in Egypt, who did not acknowledge the patriarch, Peter Mongus, because he had not, at the adoption of the Henoticon, in 483, expressly condemned the council of Chalcedon. They were divided into three parties, but were soon lost among the other *monophysites*. The Flagellants (q. v.) were also Acephali, because, as a sect, they acknowledged no head.—This term is also applied to certain nations represented, by ancient naturalists, as formed without heads, their eyes, mouths, &c. being placed in their breasts, shoulders, &c.

ACERBI, Giuseppe, was born at Castel Goffredo, in the territory of Mantua. He spent a portion of his youth in Mantua, and there acquired a knowledge of English. On the invasion of Lombardy, by the French, in 1798, he accompanied Bellotti from Brescia to Germany; thence he went to Denmark and Sweden, and lastly to Finland, in 1799. In Tornea, he met colonel Skiöldebrand, a good landscape painter, and with him planned a voyage to the North Cape. He was the first Italian that ever penetrated so far. On his return, he visited England, where he published a lively description of these travels, in a work in 3 volumes, in 1802. In his account of Lapland, A. has made good use of the exact information of the Swedish missionary, Canut Leem. The book was translated in Paris, under the eyes of the author, by M. Petit Radet. For 6 years, A. published, in Milan, the journal *Biblioteca Italiana*, the spirited criticisms of which have given an impulse to the literary character of Italy. He has

actively opposed the pretensions of the Accademia della Crusca, and the arrogant pretensions of the Florentine dialect. For several years past, spirited sketches of the latest Italian literature by A. have appeared, and have received universal approbation. His appointment as consul-general of Austria in Egypt, 1826, compelled him to resign the *Biblioteca Italiana* to other hands.

ACERRA; an altar set up by the Romans, near the bed of a person deceased, on which his friends daily offered incense till his burial.

ACETIC ACID; the acid which, in a more diluted state, is called *vinegar*.

ACHEANS are properly the inhabitants of the district Achaia, in the Peloponnesus; but this name is very frequently, especially in Homer, given to all the Grecians. Achæus, a son of Xuthus and Creusa, went to Thessaly with a number of followers, but was soon driven out, and compelled to withdraw to the Peloponnesus, where he settled in Sparta and Argos, the inhabitants of which were called *Achæans*. Of the Grecian nations engaged in the siege of Troy, the Achæans were the most numerous and powerful. After the conquest of this city, being overcome by the Dorians, they retired to Ionia, on the northern coast of the Peloponnesus, gave to the country the name of *Achaia*, and founded a republic, which was subsequently famous for the Achæan league. This league was at first formed by a few cities, for the maintenance of their security and independence; but afterwards included all the other cities of Achaia, together with Athens, Megara, &c. Sparta, however, did not join the confederacy. After the destruction of Corinth, B. C. 146, the states composing this league were made a Roman province, under the name of *Achaia*. (See *Greece*.)

ACHÆUS, in ancient history,—1. A king of Lydia, deposed and hanged for extortion. *Ovid*. 2. The founder of the Achæan state in the Peloponnesus, son of Xuthus king of Thessaly. 3. A tragic poet of Eretria, who lived some time after Sophocles. 4. Another poet of Syracuse. 5. A cousin-german to Seleucus Ceraunus and Antiochus the Great, kings of Syria, who enjoyed, for many years, the dominions he had usurped from Antiochus; but at last was betrayed by a Cretan to the last-mentioned king, and, his limbs being cut off, his body was sewed in the skin of an ass and gibbeted.

ACHAIA; properly, a narrow district of

Peloponnesus, extending westward along the bay of Corinth. Early writers, particularly the poets, sometimes include all Greece under the name of *Achaia*. At the time of the Achaean league, the Romans applied the name of *Achaia* to all the country beyond the isthmus, which had entered into the league; after the dissolution of which, Greece was divided, by a decree of the Roman senate, into two provinces, viz. that of Macedonia, containing also Thessaly, and that of Achaia, including all the other states of Greece. (See *Gibbon's Roman Hist.* chap. 1, vol. i.)

ACHARD, Frederic Charles, born at Berlin, April 28, 1754, an eminent naturalist and chemist, principally known by his invention, in 1800, of a process for manufacturing sugar from beets, which, since that time, has been brought to greater perfection. He was director of the department of physics, in the Royal Academy of Sciences at Berlin. To enable him to extend his manufacture, the great importance of which was acknowledged by the French Institute (July, 1800), the king of Prussia presented him with an estate at Kunern, in Silesia, where his establishment, at the time of the closing of the ports of Europe, by the decree of Berlin, was attended with such success, that, in the winter of 1811, it daily yielded 300 pounds of sirup. Achard connected with it, in 1812, an institution for the purpose of teaching his mode of manufacture, which attracted the attention of foreigners. He died at Kunern, April 20, 1821. Besides a number of treatises on physics and agriculture, he published several articles on the manufacture of sugar from beets.

ACHATES; the companion of *Aeneas*, and his most faithful friend, celebrated by Virgil.

ACHEEN, ATCHEEN, ACHEM or ACHEN; part of Sumatra, of a triangular form, and containing about 26000 square miles. The lands between its two ranges of mountains are fertile. The Achanese are stouter, taller and darker-colored than the other people of the island, more industrious, have more general knowledge, and deal, as merchants, in a more liberal manner. They are Mahometans; their sailors are expert and bold, and employ a multitude of vessels in trade and fishing. The government is despotic, monarchical, and hereditary; their laws extremely severe. The capital of the kingdom is Acheen, lon. 95° 46' E. lat. 5° 22' N.; pop. about 36000. Its chief trade is now with Hindostan, from whence it receives cot-

ton goods in return for gold dust, jewels, sapan wood, betel-nut, pepper, sulphur, camphor and benzoin. Europeans bring there opium, iron, arms, &c. (See *Marsden's History of Sumatra*.)

ACHELOUS, also ASPROPOTAMUS, a river running between *Ætolia* and *Acarnania*, has its source on mount Pindus, flows through the first settlements of the Grecians around Dodona, and falls into the Ionian sea. The banks of this river are the only places in Europe, which formerly afforded habitation to lions.—Hesiod calls A. the son of Oceanus and Thetis. Others say differently. He wrestled with Hercules for Dejanira, and, when thrown to the ground, assumed the shape of a terrible serpent, then that of an ox, and, after he had lost a horn, he fled, ashamed, to his waters. From the broken horn, it is said, the nymphs made the horn of plenty. He was the father of the sirens.

ACHENWALL, Godfrey, born at Elbing, in Prussia, Oct. 20, 1719, first gave a distinct character to the science of statistics. He studied in Jena, Halle and Leipsic. In 1746, he settled at Marburg, and lectured on history, the law of nature and of nations, and afterwards, also, on statistics. In 1748, he was appointed professor at Göttingen, where he remained until his death, May, 1772. A. travelled through Switzerland, France, Holland and England, and published several books on the history of the European states, the law of nations, political economy, &c. Most of them have gone through several editions. His principal endeavor, in his lectures and historical works, was to distinguish, in the long series of occurrences which are recorded in the annals of nations, every thing which might have contributed to form their character, and fix their political condition. His chief merit consists in the settled character which he has given to, and the new light which he has thrown on the science, which explains systematically the nature and amount of the active powers of a state, and hence deduces the sources of its physical and moral prosperity. He gave it the name of *statistics*. His most distinguished pupil, who succeeded him at the university of Göttingen, was Schlözer.

ACHERON; the name given by the ancients to a river of the infernal regions, over which Charon conducted the souls of the dead in a boat, for which he received an obolus, placed under the tongue of the deceased. Only the shades of those who had obtained a burial in this

world, or had, at least, some earth thrown upon their bodies, were carried over the river; others were obliged to wander on its banks a whole century. In ancient geography, there are 5 different rivers, named *Acheron*. The one in Epirus (now a province of Janina) flows first through the lake *Acherusia*, then, for a short distance, through the rocks of the Cassiopeian mountains, and falls, near Prevesa, into the Ionian sea. It is now called *Velchi*. A branch of the Nile, in the neighborhood of Memphis, is also called *Acheron*, and a lake, *Acherusia*. Over this the Egyptians ferried their dead, to bury them on an island in the lake, or on the opposite shore; or, if the judge of the dead condemned them, to throw them into the water: hence the Greek fable. The cave of Cerberus, called *Acherusis*, is found on the banks of the river *Acheron*, in Bithynia, near Heraclea. There is also a swamp in Campania, between Cumæ and the promontory of Mysenum, called by the ancients *Acherusia*. At present, there are salt works on this spot.

ACHILLEIS; a poem, by Statius, in honor of Achilles. (See *Statius*.)

ACHERUSIA, in ancient geography,—1. A lake in Egypt, near Memphis, over which, according to Diodorus, the bodies of the dead were conveyed for judgment. The boat was called *baris*, the boatman, *Charon*. Hence came the Grecian fable of Charon and the Styx. 2. A river in Calabria. 3. A lake in Epirus, through which runs the river *Acheron*. 4. A lake between Cumæ and the promontory Misenum. 5. A peninsula of Bithynia, on the Euxine, near Heraclea.

ACHILLES; according to the poets, son of Peleus, king of the Myrmidons, in Thessaly, and of Thetis, daughter of Nereus, grandson of Æacus. His mother dipped him, when an infant, in the waters of the Styx, which made him invulnerable, except in the heel, by which she held him. It had been foretold to Thetis that A. would acquire immortal glory, but, at the same time, meet an early death, if he went to the siege of Troy; while, on the other hand, if he remained at home, he would enjoy a happy old age. To prevent him from taking part in the war against Troy, Thetis disguised him, when 9 years old, in a female dress, and sent him, under the name of *Pyrroha*, to the court of Lycomedes, king of Scyros, with whose daughters he was educated. The prophet Calchas, however, announced to the Grecians that Troy could not be

taken without the aid of A. He was consequently sought for every where, and finally discovered by the crafty Ulysses, who came to the court of Lycomedes disguised as a merchant, and offered to the daughters of the king various female ornaments, among which arms were interspersed. The princesses seized the ornaments, but A. took the arms. It was now an easy task to persuade the fiery and ambitious hero to join the other princes of Greece in the expedition against Troy. Phœnix and the Centaur Chiron had been his instructors. The latter had taught him medicine, music, and riding; the former, more especially his tutor, followed him to Troy, to render him an eloquent speaker, and a brave warrior. A. appears in the *Iliad*, of which he is the hero, not only as the bravest, but also as the most beautiful, of the Grecians. He sailed to Troy with 50 ships filled with the Myrmidons, Achaians, and Hellenians, and destroyed 12 cities on the islands and 11 on the main land. Juno and Minerva took him under their special protection. On account of a quarrel with Agamemnon, whom the princes had chosen their leader, he withdrew from the field, and permitted Hector, at the head of the Trojans, to destroy the ranks of the Grecians. He remained implacable against the king, on account of Briseis, daughter of Brises, and wife of Mines, king of Lyrnessus, who had fallen to his share, in the division of the booty, but whom Agamemnon had taken from him, because he was obliged to restore to her father Chryseis, daughter of Chryses, priest of Apollo, who had fallen to his own share, in order to avert from the Grecians the plague sent by Apollo, in answer to the prayers of the old man, his priest. Neither the defeats of the Grecians, nor the offers of Agamemnon, appeased the wrath of the hero. He, however, permitted his friend Patroclus, in his own armor, and at the head of his own warriors, to mingle again in the combat. Patroclus fell by the arm of Hector; and, to revenge his death, A. resolved to return to the field. Thetis herself brought him new and costly arms, made by Vulcan, among which the shield was particularly beautiful. He became reconciled to Agamemnon, received the presents which were offered, and, refreshed by Minerva with nectar and ambrosia, hastened to the battle. The Trojans fled, and a part of them rushed into the river Xanthus and perished. The bodies obstructed the course of the stream, and the river-god, disgust-

ed with the carnage, commanded A. to desist. Not being obeyed, he overflowed his banks, and rushed against the hero. Encouraged by Neptune and Minerva, A. opposed Xanthus, who called to his aid the waters of Simois. Juno then sent Vulcan, and the west and south winds, who drove the river-god back to his proper limits. But A. pursued the Trojans to their city, which only the interference of Apollo prevented him from taking. Hector alone remained before the Scæan gate, and, having fled 3 times round the city, pursued by A., finally offered himself for combat. A. slew him, and, after dragging his body round the city, resigned it, for a ransom, to Priam. Here the narration of Homer ends. A., as represented by this sublime poet, is of a fiery and impetuous character, and has little of that firmness and rational valor which constitute the true hero. In this respect, the heroes of the German poem "Das Nibelungenlied" are far greater and nobler than those of Homer. The further history of A. is told as follows: Falling in love with Polyxena, he sought her hand, and obtained it; for which he promised to defend Troy. But Paris slew him with an arrow, which pierced his heel, in the temple of Apollo, where he was celebrating his nuptials. Others say it was Apollo who killed him, or directed the arrow of Paris. A bloody contest ensued about his body. The Greeks sacrificed Polyxena on his tomb, in obedience to his request, that he might enjoy her company in the Elysian fields, where he is also said to have married Medea. When Alexander saw his tomb, it is said that he placed a crown upon it, exclaiming, "that A. was happy in having, during his life-time, a friend like Patroclus, and, after his death, a poet like Homer."

ACHILLES TATIUS; a Greek novelist, or *Erotic writer*, so called, born at Alexandria, lived, probably, at the end of the 3d and the beginning of the 4th century, and taught rhetoric in his native city. In his old age, he became a convert to Christianity, and rose to the dignity of a bishop. Besides a treatise on the sphere, which we know only from an abridgment still extant, we possess a romance of his, in 8 books, styled, *The Loves of Clitophon and Leucippe*, which, as regards the subject and composition, is not without merit, and in some parts shows much ability. The language, though rich in rhetorical ornaments, is not free from sophistical subtlety. The charge of obscenity, which

has occasionally been brought against the work, is very properly met by a Greek epigram, which remarks, that the scope of the work is to be considered, namely, to teach temperance, to show the punishment of unrestrained passions, and the reward of chastity. The best editions are the following; that published at Leyden, 1640, one published at Leipsic, by Bode, with the notes of Salmasius, 1776, and that of Mitscherlich, 1792, (*Bipont.*)

ACHMET III., a Turkish emperor, son of Mahomet IV., reigned from 1703 to 1730. Many remarkable events took place during his reign, of which we shall here only mention, that Charles XII., after the battle at Poltawa, found protection at his court. Charles succeeded in involving A. in a war with the czar Peter the Great, which would have had a very unfortunate issue for him, if the prudence of Catharine, his mistress, whom he afterwards married, had not averted the impending danger. (See *Peter I.*) A. established the first printing press at Constantinople, in 1727. Towards the end of his reign, the janizaries revolted against him, and he was thrown into the same prison in which his successor, Mahomet V., had been confined, before he took A.'s place on the throne. He died in 1736.

ACHMIM, or ECHMIM; a considerable town of Upper Egypt, on the eastern bank of the Nile, called by the ancients *Chemnis* and *Panopolis*, by the Copts *Smin*. Though reduced from its former magnificence, it is still one of the finest towns of Upper Egypt. It has some manufactures. Abulfeda speaks of a superb temple here. The immense stones which composed it, sculptured with innumerable hieroglyphics, are now scattered about, and some are transferred into a mosque. A. contains also a triumphal arch, built by the emperor Nero. This place is famous also for the worship of the serpent Haridi.

ACHROMATIC Telescopes. (See *Optics.*)

ACIDS (*acida*); a class of compound bodies, which have the following characteristic properties: the greater part of them, a sour taste, and most of them are very corrosive; they change the vegetable blues to red, are soluble in water, and have great affinity for the alkaline, earthy, and metallic oxyds, with which they form neutral salts. Some acids have no sour taste, but their affinity for the three classes of bodies above-mentioned is always characteristic. If a few drops of sulphuric acid, nitric acid, or muriatic acid, be added to a solution of blue litmus,

it becomes red. The same is the case if they be added to other vegetable colors, as violet, &c. Hence these colors are employed as tests of acids, that is, to ascertain when they exist in any substance. We may add the infusion to the fluid in which we are trying to detect an acid, but a more convenient method is, to spread it on paper, and allow it to dry. If a strip of this be put into a fluid in which there is an acid, it instantly becomes red. Some acids appear only in a fluid state, either gaseous, as carbonic acid, or liquid, as sulphuric acid; others appear in a solid form, or crystallized, as benzoic acid, boracic acid, &c. All acids are compound bodies, and are sometimes divided into four classes, the three first of which are compounded with oxygen; the fourth class consists of those which, at least according to some modern chemists, have no oxygen; e. g. sulphuretted hydrogen. The first class consists of acids compounded with oxygen and one other body; the second class comprises the acids compounded of carbon, hydrogen and oxygen; the third class consists of those acids which contain nitrogen, in addition to the three substances above-mentioned. The ancient chemists were acquainted with but few of the acids now known; they divided them, according to the kingdoms of nature, into mineral, vegetable and animal acids. This division, however, cannot now be retained, as there are some acids which appear in all the kingdoms; e. g. phosphoric acid. If the same radical be compounded with different proportions of the acidifying principle, forming different acids, the most powerful acid receives a name from the radical, terminating in *ic*; the weaker, a name formed in the same manner in *ous*; e. g. *sulphurous acid* and *sulphuric acid*, *nitrous* and *nitric acid*; and, where there are intermediate compounds, the term *hypo* is occasionally added to the compound next above it in point of acidity. Thus *hyposulphuric acid* signifies an intermediate acid between sulphurous and sulphuric acids; *hypophosphorous acid*, an acid containing less oxygen than the phosphorous acid. (For *Prussic acid*, *Pyroligneous acid*, &c. see *Prussic*, *Pyroligneous*, &c.)

ACIRS; hurricanes of snow which prevail among the Cevennes, in the south of France. Villages are sometimes so rapidly covered, that the inhabitants have no means of communication, but by cutting passages under the snow.

ACKERMANN, Rudolph, was born in

1764, at Schneeberg, in Saxony, where his father was a saddler. He received his education at the Latin school of his native city, and, after learning the trade of his father, travelled through the country as a journeyman, according to the custom of Germany. After residing for some time at Paris and Brussels, he went to London. He there became acquainted with Facius, a German, who had undertaken to conduct a journal of fashions, (*Journal des Modes*), and met with tolerable success. A. soon afterwards published, in the same way, drawings of coaches and curricles, invented, drawn and painted by himself. The novelty and elegance of the forms excited universal attention, and he received orders for drawings from all quarters. This laid the foundation of a trade in works of art, which his activity, attention and precision in business so much enlarged in a short time, that he was enabled to marry an English woman, became a citizen of London, and founded an establishment called *Repository of Arts*, in the Strand, in the centre of London. It is one of the curiosities of the British capital, and gives employment to several hundred men. An account of every thing new has appeared for 8 years in A.'s splendid journal, *Repository of Arts, Literature and Fashion*, the first series of which, in 14 volumes, costs £18; and the new series already amounts to more than 40 numbers. Every number contains three or four elegant, colored copperplates. For 8 years he has also been engaged in a series of topographical works, exhibiting all the splendor of British aquatinta, which already constitute a small library, and, for truth of design and elegance of execution, are hardly surpassed by any similar undertaking in any country. He now has the most instructive books of the English and other languages translated into Spanish, (principally by the well-known Blanco White,) and sends them to America, where his eldest son is engaged, in Mexico, in extensive dealings in books and works of art. For some years he has also published the first souvenir in England, called the *Forget me not*. When the association was formed, in 1813, for the relief of those who had been plunged into misery by the war in Germany, A. showed himself an active philanthropist. A. is now the best lithographer in London. He employs in the summer 600 men, every day, in and around London.

ACOLYTHI, or ACOLYTES; servants of the church, who appeared in the Latin

church as early as the 3d century ; but in the Greek, not till the 5th. Their office was to light the candles, thence they were called *accensores* ; to carry the tapers in the festal processions, thence *ceroferrarii* ; to present the wine and water at the supper ; and, in general, to assist the bishops and priests in the performance of the ceremonies. They belonged to the clergy, and had a rank immediately below the subdeacons. In the Roman church, the consecration of an acolythus is the highest of the lower kinds of ordination. The person ordained receives a candlestick and chalice, in token of his ancient employment. The duties, however, formerly appertaining to this office, have been performed since the 7th century by menials and boys taken from the laity, who are improperly called *acolythi*, in the books of the liturgy of the Catholic church. The modern Greek church no longer retains even the name.

ACONITA ; a vegetable poison, recently extracted from *aconitum napellus*, or wolf's-bane, (properly alkaline,) by Mr. Brande. The analysis has not yet been made known.

ACOUSTICS. One of our most important connexions with external objects is maintained through the sense of hearing ; that is, by an affection which certain actions or motions, in those objects, produce on the mind, by being communicated to it through the ear. The peculiar excitation or motion perceptible by the ear is called *sound* ; and the consideration of this motion, its qualities and transmission, forms the science of acoustics. Philosophers make a distinction between sound and noise : thus those actions which are confined to a single shock upon the ear, or a set of actions circumscribed within such limits as not to produce a continued sensation, are called a *noise* ; while a succession of actions which produce a continued sensation are called a *sound*. It is evident from the mechanism of the ear, so far as it is understood, that it is a refined contrivance for conveying a motion from the medium which surrounds it to the auditory nerve ; and that this nerve must receive every motion excited in the tympanum. Every motion thus excited, however, does not produce the sensation of sound. That motions may be audible, it is necessary that they impress themselves upon the medium which surrounds the ear with velocities comprised within certain limits. These motions are commonly produced by disturbing the equilibrium which exists be-

tween the parts of a body. Thus, for example, if we strike a bell, the part which receives the first impulse of the blow is driven nearer to the surrounding parts ; but, the impulse having ceased, it is urged back by a force of repulsion which exists in the metal, and made to pass beyond its former position. By the operation of another property of the metal, namely, cohesive attraction, it is then made to return in the direction of its first motion, again, beyond its position of repose. Each of these agitations influences the adjacent parts, which, in turn, influence those beyond them, until the whole mass assumes a tremulous motion ; that is, certain parts approach to and recede from each other ; and it only recovers its former state of repose, after having performed a number of these sonorous vibrations. It is evident that such vibrations as are here described must result from the combined operation of attraction and repulsion, which, together, constitute the elasticity of solid bodies. When fluids, whose elasticity is confined to repulsion, emit sounds, a force equivalent to that of attraction in solids is supplied to them by external pressure. The sonorous vibrations of bodies are exceedingly curious, and the more difficult to be understood from our habits of measuring changes or motions by the sight ; but these motions affect very sensibly another organ, while they are almost imperceptible to the eye ; and, as we are without the means of converting the ideas derived from one sense into those derived from another, the sensation of the motion of sound does not assist us to understand its precise nature, as compared with visible motions. Thus, the ear at once perceives the difference between a grave and an acute sound ; but it is only from attentive observation by the eye, that we discover the different rapidity of succession in the vibrations which produce them. The vibrations of a great many bodies, as strings, bells and membranes, when emitting sounds, may, however, be distinctly seen, and even felt ; but they may often be rendered more sensible to the eye by a little artifice, such as sprinkling the vibrating body with sand, or some light, granular substance. Sound may be produced without vibrations or alternations ; thus, if we pass the nail quickly over the teeth of a comb, the rapid succession of single shocks or noises produces all the effect of vibrations. It must be evident that the rapid motions here described, whether

originating in vibrations, or a succession of concussions, must be communicated from the body, in which they are excited, to the sheet of air, or whatever else be in contact with it, and from this again to another sheet beyond the first; thus diffusing the motion in every direction. The agitation of the sounding body must thus be communicated to the surrounding medium to a great distance, and impressed upon any body situated within this distance; if this body be the ear, the tremor excited in it by these agitations will be perceived by the mind. The necessity of some medium for the transmission of sound is proved by experiment. If a bell be rung in an exhausted receiver, the sound will be hardly perceptible, while the tones will become clear and distinct, on re-admitting the air. Having thus given a general outline of the source and propagation of sound, we shall proceed to consider, with as much minuteness as the limits of this work will permit, some of the more important facts connected with them.—The most obvious characteristics, by which we distinguish different sounds, consist of differences in their degrees of what we call loudness, and acuteness, or *pitch*. We can produce, at pleasure, sounds having different degrees of loudness, from the same sonorous body, by making the concussions upon it more or less violent; disturbing in a greater or less degree the arrangement of its parts. So two bodies of like substance and figure, but unlike mass, when subjected to the same shock, emit sounds unlike in loudness; and, again, bodies of like mass and figure, but unlike substance, form sounds more or less loud, when subjected to the same shock. In this latter case, the loudness has a relation to the quantity of elasticity possessed by the bodies; and in all cases, when the disturbance of the parts is carried beyond the elastic power of the body, so as to produce a permanent change of figure, no increase of loudness is induced. From a consideration of the preceding facts, we may conclude, that loudness depends upon the quantity of motion, or sonorous vibration, in which it originates. The other principal characteristic of sound, its acuteness or *pitch*, depends upon the frequency with which the concussions or vibrations of the sonorous body succeed each other. That sounds may be audible to a common ear, it is necessary that the concussions upon the medium, which communicates them, should follow each other in such succes-

sion, that not more than 8192, nor less than 32, distinct concussions shall be made upon the medium during the lapse of one second. Some ears, however, can perceive sounds emanating from vibrations a little beyond the extremes to which the perceptions of other ears are confined. We should be careful not to confound the frequency of vibrations with the velocity of vibratory motion. A string may vibrate with a greater or less velocity, as it passes its axis to a greater or less distance; yet the times of its vibrations may be all equal. The difference of velocity, affecting the quantity of motion only, would produce no change, except in the loudness of the sound. To those sounds which proceed from infrequent vibrations, we give the name of *grave* or *low*; those from frequent vibrations we call *sharp* or *acute*. When vibrations succeed each other in equal times, their sound excites a pleasant sensation, and they are called *musical*. When two bodies are made to sound together, if their vibrations are performed in equal times, the sounds are said to be in *unison*. When the vibrations are performed in unequal times, so that some of those of the one are not accompanied by those of the other, the ear perceives a degree of dissonance in the sounds. If, however, the vibrations meet after short and regular intervals, the dissonance is not easily detected, and the sounds are said to *accord*. During the continuance of most primary sounds, however excited, we perceive other and more acute sounds co-existing with them. These are called their *harmonics*. They are supposed to originate in a series of secondary vibrations, more short and frequent than the principal vibration. Thus a sounding string, for example, may be supposed not to pass its axis in a simple curve, but to resolve itself into a tortuous line, formed by a number of smaller curves, each of which vibrates across its own axis, thus producing its harmonics. It is perhaps some combination of the harmonics with the primary sound, that characterizes the sound of different instruments, though of the same loudness and pitch, so that we can distinguish one from another. The air, being the common medium which surrounds the ear, is that by which sounds are usually transmitted. This transmission is performed with a velocity of about 1130 feet in a second. All other bodies, however, are capable of transmitting sound. It may be done perfectly, even by the solid parts of the head. If, for example, we hold the stem

of a watch between the teeth, and cover the ears with the hands, the beats are heard more distinctly than when the instrument is held at an equal distance in the air. The rubbing together of two stones under water may be heard, by an ear in the same medium, at the distance of half a mile. When the air, or any other body of indefinite extent, is disturbed, in a point situated within it, by a sonorous vibration, it forms a wave which passes from the disturbed point, as a centre, in every direction. It follows that as the wave extends itself, the mass to be put in motion increases until the original motion is rendered insensible from the magnitude of the mass to which it has communicated itself. The velocity with which waves, thus formed, move through any homogeneous elastic medium, is always equal to that which a heavy body would acquire by falling through half the height of the modulus of elasticity.* In applying this law to the transmission of sound by the air, it was for a long time found not to give the same results as were obtained by experiment. The discrepancy, however, has been most ingeniously reconciled by a small correction for the latent heat made sensible by the compression; the effect of this being to increase the height of the modulus of elasticity. We ought, therefore, to find that liquids, and more especially some of the solids, should transmit sound much more rapidly than air; and this agrees most perfectly with various experiments. Cast-iron, for example, has been found to transmit sound with a velocity $10\frac{1}{2}$ times greater than air. Sound does not readily pass from one medium to another; a sound made in the air is not easily distinguished under water, although the distance be very small. It is from this, probably, that cork and all soft cellular bodies are bad conductors of sound, as in these the sound must, in passing through the walls of the cells and the air contained in them, change successively from one medium to another. All sounds, whatever be their loudness or pitch, are transmitted with the same velocity; a fact most completely proved by every musical performance. Were it otherwise, indeed, this beautiful art could not exist. To make this apparent, it is only necessary to consider, that harmony is a combination of different sounds arranged with certain relations of time and pitch. Now, if one sound were transmitted with

greater velocity than another, these relations would differ at different distances, or be confounded, except at a single given point. Nay, further; melody, which is a succession of single sounds, would not reach different ears with the same relations of time, if the different notes were not transmitted with equal velocities. Some observations on sound, in very high latitudes, seem to contradict the above law of transmission. The seeming anomaly, however, is sufficiently reconciled by supposing the different strata of air, through which the sounds, in those instances, were transmitted, in very different hygrometrical or thermometrical states; which would make corresponding differences in their modulus of elasticity. When a wave of sound meets an elastic surface, it is partly transmitted and partly reflected. This reflection, when it returns back perpendicularly, is called an *echo*. That an echo may be distinctly heard, it is necessary that the reflecting surface be at such a distance that the original sound shall have ceased before the reflected one returns to the ear; otherwise they will be blended, and the echo not perceived.—Hitherto we have considered the propagation of sounds in an unconfined medium, particularly the air, in which the wave of sound can diffuse itself in every direction. When this diffusion is prevented by enclosing the medium in a surface capable of reflecting the wave so that the sound shall be confined to one direction, the transmission from one point to another is much more perfect. Experiments have been made in this way, in which a hollow cylinder, about half a mile long, was formed by cast-iron pipes. The sound was transmitted by the air, in this cylinder, with wonderful distinctness. The least whisper, at one end of the cylinder, was distinctly heard at the other end. So perfect, indeed, was the transmission, “that, not to hear, it was absolutely necessary not to speak.” Captain Parry and lieutenant Foster made several experiments, during the northern expeditions, to ascertain the velocity of sound. A table of them is given in a number of the *Edinburgh Philosophical Journal*. These experiments were made at Port Bowen, by means of a brass six-pounder, over a range of 12,892.89 feet. The results given are the mean of four shots in one case, of five in another, and, in the rest, of six shots by each observer. The mean results varied from $12''7617$ to $11''7387$ and $11''5311$ for the time in which the range of 12,892.89

* The height of the modulus of elasticity of air is 27,800 feet.

feet was traversed by the sound. At the period of the experiment which gave the first of these results, there was a calm; during the second, the wind was light; during the third, a strong wind was blowing. The velocity per second, in feet, was, in the first instance, 1010.28; in the second, 1098.32; in the third, 1118.10. Omitting the last of the ten results (the last above given), on account of the strong wind, the mean of the other nine gives a velocity of 1035.19 feet, at the temperature of 17.72, Fahrenheit.—The mean of a table of velocities formed from observations made at Fort Franklin, by lieutenant Kendall, who accompanied captain Franklin, in his second journey to the shore of the Polar sea, gives a velocity of 1069.28 feet per second, at the temperature of 9.14, Fahrenheit.—The science of acoustics, like the other physical sciences, has been in a constant state of advancement since the revival of learning. It appears that Pythagoras knew the relation between the length of strings and the musical sounds which they produce. Aristotle was not only aware of this relation, but, likewise, that the same relation subsists between the length of pipes and their notes, and that sound was transmitted by the atmosphere. This constituted the sum of ancient learning in this branch of science. These facts were taught by Galileo, and, moreover, that the difference in the acuteness of sounds depends on the different frequency of vibrations, and that the same string, if of uniform thickness and density, must perform its vibrations in equal times. But, without attempting a history of modern discoveries in acoustics, we can only mention, that the names of Taylor, Moreland, Newton, Daniel Bernouilli, D'Alembert, Euler, Robison, Lagrange, Laplace, Chladni, T. Young and Biot are all connected with it. Of these, Newton gave the law of transmission, which we have stated in this article, and the correction for heat was made by Laplace.

ACRE; a measure of land, containing four square roods, or 160 square poles or perches. The statute length of a pole or perch is $5\frac{1}{2}$ yards, or $16\frac{1}{2}$ feet; but the length of a pole, and, therefore, the size of the acre, varies in different counties in England. The Scottish acre contains also four square roods; one square rood is 40 square fells. The English statute acre is about three roods and six fells, standard measure of Scotland; or the English acre is to the Scottish as 78,694 to 100,000. The French acre, *arpent*, is

equal to 54,450 square English feet, of which the English contains only 43,560. The Welsh acre contains commonly two English ones. The Irish A. exceeds the English by two roods, $19\frac{2}{3}$ perches. The U. S. of A. use the English statute A.

ACRE (Akka, St. Jean d'Acre); in the middle ages, *Ptolemais*, a city and harbor on the coast of Syria, capital of a Turkish pachalic, between the pachalics of Damascus and Tripoli, which contains 420,000 inhabitants, and 6275 sq. miles. This city, situated at the foot of mount Carmel, is the chief emporium of Syrian cotton, and contains about 16,000 inhabitants; its harbor, though full of sandbanks, is still one of the best on this coast. At the time of the crusades, A. was the principal landing place of the crusaders, and the seat of the order of the knights of St. John as late as 1291; hence the French name, *St. Jean d'Acre*. The Turks, under Djezzar, pacha of this place, who is famous for his cruelty, sustained, with the assistance of the British commodore Sidney Smith, a siege of 61 days, by the French army under Buonaparte. After a great loss of men on all sides, the French abandoned the siege. (See *Egypt, landing of the French in.*)

ACRIDOPHAGI (*Gr.*, from *ακρις*, a locust, and *φάγω*, to eat); an ancient Ethiopian people, who are said to have fed on locusts.

ACRISIUS; the father of Danaë. (See *Danaë.*)

ACROCERAUNIUM; in anc. geogr. a promontory of Epirus, on which are situated the Acroceraunia or montes Ceraunii. They run between the Ionian sea and the Adriatic, where Illyria ends and Epirus begins, and are the modern Monti della Chimera.

ACROCORINTHUS; a steep rock, about 2100 feet high, near the city of Corinth, of a gray color, and picturesque form, crowned with the remains of old Venetian fortifications, repaired a little by the Greeks, since the commencement of their revolution. It was famous, in ancient times, for its citadel, and on its top stood, according to Pausanias, a temple of Venus. At its foot is a fountain, the ancient Pyrene. The shape of the A. is that of a truncated cone. This little fortress has been several times taken and retaken in the war between the Greeks and Turks. The view from the top is one of the most charming in the world. It is thus described in the "Journal of Dr. Lieber," before whom no Christian traveller, in modern times, had probably visited it, as the

Turks did not allow Christians to ascend it while it was in their hands:—"The view from this spot amply rewarded me for my trouble. To the north lay the high and snowy summits of Helicon and Parnassus, as described by Strabo, extending far under the clear blue of a southern sky. On the west was seen the bay of Crissa, mount Cithæron, and the promontory of Olmiæ. On the east the Saronic gulf washes the islands of Salamis and Ægina. To the north-east lay the shore of Attica. There we could see Pentelicus, Hymettus and Laurion, and even down to the cape of Sunium. The day was very clear, so that I could discern the acropolis of Athens. To the south I could see far into the territory of Argolis. To the west Achaia and Sicyonia lay in sight. The view comprehended the scenes of the best displays of Grecian art, science and valor."

ACROPOLIS (*Greek*); the highest part or citadel of a city, particularly that of Athens, where the treasury and public records were kept. It is situated on a rock, and has often been the subject of contest in the late war between the Greeks and the Turks.

ACROSTIC (*Greek*); a poem, of which the first, and sometimes the final letters of the lines or verses form some particular word or words. The middle letters, also, are sometimes used for the same purpose. An example of the three kinds united may be seen in the following Latin hexameters:

I nter cuncta micans I gniti sidera cœl I,
E xpellit tenebras E toto Phœbus ut orb E;
S ic cœcas removet IESUS caliginis umbra S,
V ivificansque simul V ero præcordia mot U,
S olem justitiæ S ese probat esse beati S.

The French abbés and nobles, before the revolution, often exercised their ingenuity in the composition of these poetical trifles. The French *Encyclopédie moderne* says, *L'acrostiche était alors un poème de cour ou de ruelle.*

ACT, in law; an instrument in writing for declaring or justifying the truth of any thing. In this sense, records, decrees, sentences, reports, certificates, &c. are called *acts*. The French lawyers distinguish between, 1, *private records* (*actes sous seing privé*), which must be acknowledged by the parties, in order to have legal force; 2, *public documents* (*actes authentiques*), which have legal force, without being acknowledged by the parties, as long as they are not proved spurious; and, 3, *executive acts* (*actes exécutoires*), which, until their genuineness is called in question (*inscription à faux*), are also binding

without acknowledgment by the parties subject to their operation. Of this kind are the records of the public notaries (*actes notariés*), and all the official documents of the French courts of justice. In England and the United States, act implies *decree*; hence, an act of parliament is a decree of parliament, confirmed by the king, a statute. (See *Great Britain*.) At the close of each annual session, the decrees or acts of parliament are collected into one body, which forms the statute of that session, the several decrees of which are contained in separate chapters. They are quoted according to the year of the king's reign, and according to the chapter; e. g. the act of *habeas corpus* is the second chapter of the statute of the year 1680, the 31st year of the reign of Charles II, and is quoted, 31 Ch. II, c. 2. In America, there is no uniform mode of quoting statutes: each separate act is deemed a distinct statute. Generally, the acts are cited by their date and year; and, if more particularity is necessary, by the chapter, when the statutes are divided into chapters. Acts in Germany are the records and documents of any transaction, especially of a lawsuit. The whole process, in that country, is carried on in writing. Nothing is received as evidence, unless laid before the court on paper. When a criminal process begins, the prisoner is brought before a judge or assistant and a writer. The judge questions: the question is written on the left side of a folio sheet; on the right side the answer of the prisoner is set down. The same takes place with every witness. The reader can imagine to what an immense bulk these acts often increase in the course of a single process. If there are witnesses in other places, an order to examine them is sent, and the papers containing the minutes of their testimony are transmitted to the place of trial. The examining judge is called the judge of inquisition (*inquisitions-richter*). At the close of each stage of the examination, the prisoner subscribes the minutes made during that time with the words, "read in my hearing, approved and signed." He also signs his name, as do likewise the judge and the writer. When the acts are completed (*closed*), they are delivered to the court, who appoint another judge to report on them and move for judgment, while another still acts as counsel for the prisoner. Afterwards, the whole court in *pleno* decides. In fact, in Germany, the whole course of administration is conducted in writing. In Saxony, such acts are almost

endless. In Prussia, also, they are very numerous. All acts are preserved in archives. After sentence passed in one court, the whole pile of acts is sent to a court of appeal.

ACT, in the universities, signifies a thesis maintained in public by a candidate for a degree.

ACT OF FAITH. (See *Inquisition*.)

ACTA ERUDITORUM; the first literary journal that appeared in Germany. It enjoyed a long existence and great popularity. The example set by the *Journal des Savans*, and by the *Giornale de' Letterati*, but especially the increasing spirit of enterprise and activity among the German booksellers, induced Otto Mencke, professor at Leipsic, to lay the foundation of this periodical publication, in 1680.

Having formed the necessary connexions, on his travels through Holland and England, and being assisted by the most eminent German scholars, he commenced the journal in 1682, which increased in popularity from year to year. Among the contributors were Carpzov, Leibnitz, Thomasius, &c. Its object was, to give a faithful and particular account of books; and it was conducted on the same plan, even after a better taste in composition and greater independence were introduced into literary discussions in the French journals published in Holland. The German journal began, however, to decline gradually in value, and in the number of its subscribers, particularly after 1754; and the irregularity of its appearance became at length so great, that the last volume, for 1776, was published in 1782, exactly a century from the time when the journal was commenced. The whole consists of 117 volumes in 4to., including the supplementary volumes and indices. Leibnitz, in this journal, first gave to the world his notions respecting the differential calculus.

ACTA SANCTORUM; a name sometimes applied to all collections of accounts of ancient martyrs and saints, both of the Greek and Roman churches. It is used more particularly as the title of a voluminous work, comprising all those accounts, which was commenced at the instigation of the Jesuits, in 1643, by John Bolland, a Jesuit of Antwerp, and after his death continued by other divines of the same order, known by the name of *Bollandists*, (q. v.) to the year 1794, but not yet finished, (Antwerp, Brussels and Tongerloo, 1643—1794, 53 volumes in folio.) Some imperfect notices of persons distinguished for their holy lives and religious constan-

cy, during the period of the persecution of Christian believers, are found as early as the second and third centuries; particular narratives and biographies commenced with the 4th century, and were infinitely multiplied till the close of the middle ages. Since the 6th century, many works have been compiled from this immense mass of materials. The first critical collection of original legends was edited by Boninus Mombricitus, in 1474. The above-mentioned collection, however, surpasses all others of the kind in extent, fidelity and impartiality. It is likewise distinguished for sound criticism and excellent illustrations, which will make it forever a most valuable storehouse of ecclesiastical history, if truth is critically separated from fiction and superstition, by the historian who describes the manners and the spirit of those ages.

ACTÆON; in fabulous history, the son of Aristæus and Autonoe; a great hunter. He was turned into a stag, by Diana, for looking on her when she was bathing, and was torn to pieces by his own dogs. Also, a Corinthian youth, killed by Archias, one of the Heraclidæ, in an attempt to carry him off from his father's house.

ACTION (*law*) a term including private suits and public prosecutions. Actions are, therefore, criminal or civil; criminal, for the punishment of crime; civil, for the obtaining of right. Civil actions are divided into real, personal and mixed. Action real is that whereby a man claims title to lands or tenements in fee or for life. Action personal is brought upon contracts, or injury to person or estate. Action mixed lies for a thing and against the person who has it. It seeks an object, and a penalty for its detention. Many personal actions die with the person. Real actions survive. In all actions merely personal, for wrongs actually committed by the defendant, as trespass, battery, slander, the action dies with the person, and never can be revived, either by or against the executors or other representatives. But in actions on contracts, where the right descends to the representatives of the plaintiff, and those of the defendant have received effects from the deceased sufficient to answer the demand, though the suits abate by the death of the parties, yet they may be revived against or by the executors. Again, actions are either local or transitory. Actions, real or mixed, for the recovery of the freehold, or for damage done to it, are to be brought in the same county where the land lies. Actions on

contracts, or for personal injuries, are not limited to a particular county. Actions are likewise joint or several; joint, where several persons are equally concerned, and one cannot bring the action, or be sued, without the other; several, in case of trespass, &c., where persons are to be severally charged. Every trespass committed by many is several.

ACTIUM, a promontory on the western coast of Greece, in ancient Epirus, the northern extremity of Acarnania (now *Albania*), at the entrance of the Ambracian gulf, at present called *capo di Figolo*, or *Azio*, on the gulf of Arta, is memorable on account of the naval battle fought here between Antony and Octavius, Sept. 2, B. C. 31, in sight of their armies, encamped on the opposite shores of the Ambracian gulf. The forces of Octavius consisted of 80,000 infantry, 12,000 cavalry, and 260 ships of war; those of Antony, of 100,000 infantry, 12,000 cavalry, and 220 ships of war. Notwithstanding the advice of his most experienced generals, to meet Octavius by land, Antony, at the instigation of Cleopatra, determined upon a naval engagement. His vessels advanced, beautifully ornamented, and remarkable for their size; those of Octavius, although smaller, were more skilfully managed. Both fleets were manned with the soldiers of the Roman legions, who considered a sea-fight like a battle on land, and the ships as forts which were to be stormed. Those of Antony threw fire-brands and missile weapons from catapults, whilst those of Octavius applied grappling-irons to the ships of the enemy, and boarded them. Soon after the beginning of the battle, before any thing decisive had taken place, the timid Cleopatra fled with 60 Egyptian ships, when she perceived the centre of Antony's fleet in an unfavorable position. Antony imprudently followed her. Octavius, perceiving his flight, proclaimed it aloud, and the deserted fleet was soon overcome, notwithstanding a brave resistance, and immediately went over to the enemy. Antony's troops, which were drawn up on the shore, and had beheld with amazement the flight of their leader, followed the example of the fleet. Antony fled with Cleopatra to Egypt, where he killed himself, to avoid falling into the hands of his enemies. Augustus enlarged the temple of Apollo at Actium, in commemoration of his victory, dedicated to Neptune and Mars the standards which he had taken, and instituted games, to be celebrated every 5 years, in com-

memoration of this battle, which made him master of the world.

ACTON, Joseph, prime minister of Naples, was born in 1737, of Irish parents, who had settled in Besançon. After he had finished his education, he entered the French navy, which he soon quitted for the Tuscan, and was subsequently employed in the Spanish expedition against Barbary, in which he found an opportunity to distinguish himself. This led him to the Neapolitan navy, and then to the Neapolitan court, where he acquired the favor of queen Caroline. He was successively appointed minister of the navy, minister of war, then director of the finances, and, finally, prime minister. In this office he contracted an intimacy with the English ambassador, sir William Hamilton, and, in concert with him, exercised a great, and by no means beneficial influence over the fortunes of Naples. A. is a new example, how dangerous it is for monarchs to intrust favorites with unlimited power. His implacable hatred against France led him, during the continuance of the Italian wars, to the most extravagant measures, which always turned out disadvantageously for the royal family, and strengthened the French party, from which that of the Carbonari was afterwards formed. A. accompanied the king, in 1798, on Mack's expedition against the French army. During the presence of Nelson, he had previously presided over the renowned *junta*, which, to satisfy its hatred against men of different political opinions, with unprecedented cruelty, sought out victims in all ranks. After the unfortunate issue of Mack's expedition, A. was removed from the helm of the Neapolitan government. He died in 1808, hated and despised by all parties.

ACTORS. (See *Actresses*.)

ACTRESSES, in the drama, appear to have been wholly unknown to the ancients, men or eunuchs always performing the female parts. Charles II is said to have first encouraged their public appearance in England; but there is evidence that the queen of James I performed in a court theatre. Actors were long excluded from good society, and actresses still longer, and perhaps the English were the first who admitted the most distinguished into their first circles. Instances of exemplary conduct are not wanting amongst actresses in modern times. France, England, Italy and Germany have had many of unblemished reputation. At Athens, actors were highly honored. At Rome, they were despised, and

deprived of the right of suffrage. The reason of this difference is, that, among the Greeks, the actors were freeborn citizens, and the dramatic performances had their origin in the sacred festivals; but, among the Romans, the drama was introduced by persons of the lowest class, Etruscan players and peasants of Atella. Actors and actresses continued for a long time to be treated with little regard in France, after they had been admitted into good society in England. Marriages of Englishmen of high rank with actresses are not rare. In some parts of Germany, actors were formerly buried like suicides, in a corner of the burying-ground, separated from the other graves. How much the ancients studied the dramatic art may be seen from one fact, that Polus, a famous Greek actor, when he had to play Electra, in the tragedy of Sophocles, made use of an urn containing the ashes of his own son, to represent the funeral urn of Orestes. But here art ceased; this was again nature.

ACTS of the Apostles (*πραξεις τῶν ἀποστόλων*); one of the books of the N. Testament, written in Greek by St. Luke (q. v.), the author of the Gospel which bears his name. It is addressed to Theophilus, of whom nothing is known, and is evidently intended as a continuation of the Gospel, which the author himself calls his "first book." (*Acts* i, 1.) It has been universally received, and is generally allowed to have been written A. D. 63 or 64, but in what place is doubtful; Jerome says, at Rome; Grotius and Lardner think, in Greece; Michaelis, in Alexandria. It embraces a period of about 30 years, beginning immediately after the resurrection, and extending to the 2d year of the imprisonment of St. Paul in Rome. Very little information is given of any of the apostles, excepting St. Peter and St. Paul, and the accounts of them are partial and incomplete. Thus the history of St. Peter terminates with the death of Herod, although that apostle is considered to have lived and preached 24 years longer. It describes the gathering of the infant church after the death of its Founder; the fulfilment of the promise of Christ to his apostles, in the descent of the Holy Ghost; the choice of Matthias in the place of Judas, the betrayer; the testimony of the apostles to the resurrection of Jesus in their discourses, attested by miracles and sufferings; their preaching in Jerusalem and in Judea, and afterwards to the Gentiles; the conversion of Paul, his preaching in Asia Minor, Greece and Italy, his

miracles and labors. Its place is generally at the head of the apostolicon, or before the epistles; but in some MSS. it is found after the 13 Catholic epistles. The style of this work, which was originally composed in Greek, is purer than that of the other canonical writers; and St. Luke, in his quotations from the Old Testament, always makes use of the Septuagint version.

ACUNA, Christopher de, a Spanish Jesuit, born at Burgos, in 1597. He is principally known as the author of a curious work, *Nuevo Descubrimiento de Gran Río de los Amazonas*, (A new Description of the Great River of the Amazons,) Madrid, 4 parts, 1641. Only two copies are said to exist at present. In 1682, a translation of one of them into French was published in 4 vols. 12mo. A's work is very curious.

ACUPUNCTURE. Kämpfer made known, more than 100 years ago, the Japanese and Chinese method of curing arthritic and rheumatic complaints by acupuncture; but it is only a few years since it has been carefully examined and applied in England and France. (See *Churchill's Treatise on Acupuncture*.) In Japan and China, this mode of curing is applied much more frequently than in Europe, and even to the tenderest parts of the body. It consists in driving a fine needle one or two inches into the flesh of the afflicted part. The opinions of the cause of relief by acupuncture are still very different. Some writers think a galvanic influence on the nerves takes place.

ACUTE. (See *Accent*.)

AD LIBITUM, used in music for a *piacere*, when the principal performer is at liberty to give way to his conceptions, to change the measure from quick to slow, or the contrary, without accompaniment, and to manifest his ability in the effusions of his fancy. The term is often used in the full score, to denote those parts which are not essential, and may be omitted.

ADAGIO (*Ital.*) expresses a slow time. Used substantively, it expresses a slow movement. Sometimes the word is repeated to denote a still greater retardation in the time of the music.

ADALBERT, or ALDEBERT; a native of France, who preached the gospel in 744, on the banks of the Maine. He is remarkable as the first opponent to the introduction of the rites and ordinances of the Catholic church into Germany. He dared to assert, that the multiplication of saints and relics, and the practice of confession, were superfluous. On this ac-

count, he was accused of heresy, by Boniface, the apostle of Germany, and condemned by two councils, at Soissons in 744, and at Rome in 745. Having finally made his escape from prison, he is said to have been murdered by some peasants, on the banks of the Fulda.

ADALBERT, archbishop of Bremen and Hamburg, a descendant of a princely house of Saxony, received his office, in 1043, from the emperor Henry III, whose relation, friend and follower he was. He accompanied Henry to Rome, where he was a distinguished candidate for the papal chair. Pope Leo IX, in whose behalf he had spoken at the synod of Mentz, 1049, made him his legate in the north of Europe, 1050. He superintended the churches of Denmark, Norway and Sweden, but aspired in vain to the dignity of pope, or patriarch of the North. During the minority of Henry IV, who afterwards became emperor, he usurped, in concert with Hanno, archbishop of Cologne, the guardianship of the young prince, and the administration of the empire, and gained an ascendancy over his rival, by indulging the passions of his pupil. After Henry had become of age to rule, A. exercised the government without control, in his name. A's pride and arbitrary administration induced the German princes, in 1066, to remove him by force from the court; but after a short contest with the Saxon nobles, who laid waste his territory, he recovered his former power, which he held till his death at Goslar, March 17, 1072. He excelled his contemporaries in princely qualities, in talent, and in strength of mind; and if he had possessed magnanimity, and a wise spirit of moderation, he would have deserved the name of *the great*, which has been given him. The injustice and tyranny which stained his administration were mainly instrumental in producing the confusion and calamities, in which the reign of Henry IV was involved.

ADALBERT of Prague, the apostle of Prussia proper, son of a Bohemian nobleman, was educated in the cathedral of Magdeburg, between the years 973 and 982, and appointed bishop of Prague in 983. He labored in vain to convert the Bohemians from paganism, and to introduce among them the ordinances of the church of Rome. Discouraged by the fruitlessness of his pious zeal, he left Prague, 988, and lived in convents at Montecasino and Rome, until the Bohemians, in 993, recalled him. But after two years, he again left them, disgusted with

their barbarous manners. He returned to Rome, and soon followed the emperor Otho III to Germany; on which journey he baptized, at Gran, St. Stephen, who subsequently became king of Hungary. After a visit to the monasteries of Tours and Fleury, he proceeded to Gnesen, to meet Boleslaus, duke of Poland; and being informed that the Bohemians did not wish to see him again, he resolved to convert the pagans of Prussia. But he lost his life in the attempt, being murdered by a peasant, April 23, 997, near what is now Fischhausen. His body was bought by Boleslaus, for its weight in gold, and became famous for its miraculous power. It was even visited at Gnesen by Otho III, in 1000, and removed from Bohemia by duke Brzetislaw. Its influence was greater than that of the saint himself. The Bohemians, who before had refused to receive the ordinances of the church, now suffered them to be introduced into Prague, on the sole condition, that these miraculous bones should be transferred to their city.

ADAM (Hebrew, *formed of earth*), the father of the human race, was, according to Genesis, made of clay, on the sixth day of the creation. God finished the work of creation by forming man according to his own image, making him master of all created things. He gave him Eve for his companion (in Hebrew, *Heva, the mother of the living*), formed of his flesh, that the earth might be peopled by their union. The garden of Eden, diversified with fruitful trees, was their abode, in which they found every thing to satisfy their wants, and to afford them pleasure. But in the centre stood the tree of the knowledge of good and evil; and of this their Creator had forbidden them to eat. Eve was beguiled by the serpent to take of this fruit, and to eat of it with her husband. This crime destroyed their felicity. The appearance of things was suddenly changed before their eyes. They perceived their nakedness, and endeavored to conceal it. In vain did A. seek to hide himself from the sight of God; in vain did he throw the blame of his transgression upon Eve; a curse followed them and the whole creation. Driven from the state of innocence, in which he was born, A. saw himself condemned to earn his bread by the sweat of his brow. All the evils of life and the terrors of death came upon him. He had three sons, Cain, Abel and Seth, and died at the age of 930 years, 130 of which he passed in Paradise. The history of A. is

found, with little variation, in the traditions of nearly all ancient nations, who seem to have derived their information from a common source.

ADAM. Three brothers of this name were sculptors. The eldest, Lambert Sigisbert, born in 1700, at Nancy, where his father was also a sculptor, went, at the age of 18, to Metz, and thence to Paris. After four years study in this city, he received the first prize from the academy, and soon afterwards went as a royal pensioner to Rome, where he passed 10 years. The cardinal of Polignac commissioned him to supply the parts wanting in the 12 marble statues, found in the palace of Marius, and known by the name of the *family of Lycomedes*, which task A. executed with great skill. When the erection of the large monument at Rome, known by the name of the *fountain of Trevi*, was contemplated, A. was one of the 16 statuary appointed to furnish designs. That which he offered was accepted, but the jealousy of the Italian artists opposed its execution, and in 1733 A. returned to France. In 1737, he was chosen member of the academy, and afterwards professor. The statue of Neptune calming the waves, with a Triton at his feet, is a fine specimen of his skill. Besides various other works, he now finished the group of Neptune and Amphitrite, to adorn the basin of Neptune at Versailles. A. was skilful in working marble; his anatomy is correct and his drapery good; but he was led astray by the bad taste of his time, which confounded the provinces of painting and sculpture. He died in 1759.—His brother, Nicholas Sebastian, born at Nancy in 1705, studied the same art, under the care of his father, and in the academy of Paris. At the age of 18, he was employed in a castle near Montpellier, and went, after 18 months, to Rome, in 1726. After two years, he gained the prize offered by the academy of San Luca, worked in connexion with his brother, spent nine years abroad, and was finally admitted into the academy of Paris. His Prometheus lacerated by the vulture was exhibited as a specimen of his powers, but not finished until some time after the exhibition. His masterpiece is the tomb of the queen of Poland, wife of Stanislaus. In regard to his merits, what has been said of his brother holds true of him. He died in 1778.—The third brother, Francis Gaspard, born at Nancy in 1710, was also a pupil of his father. In 1728, he joined his brothers in Rome, and improved greatly in their company. He

then returned to Paris, gained the first prize of the academy, and in 1742 visited Rome again, where he completed his studies. He then went to Berlin, instead of his brother Nicholas Sebastian, whom Frederic II had invited thither. He labored there several years, and died at Paris in 1759.

ADAMANT. (See *Diamond*.)

ADAMANTINE SPAR; a stone of peculiar hardness, approaching to that of the diamond. It will cut glass easily, and mark rock crystal. It is found in China and India, and, as M. Pini alleges, in Italy.

ADAMI POMUM. (See *Adam's Apple*.)

ADAMITES; the name of a Christian sect, said to have existed in the 2d century; and also of a band of heretics, which, in 1421, appeared in Bohemia, during the commotions occasioned by the doctrines of Huss. They were called A. because both men and women were said to appear naked in their assemblies, either to imitate Adam in the state of innocence, or to prove the control which they possessed over their passions. The tradition respecting the former sect of this name appears to have had its origin in a name of derision given to the Carpocratians of indifferent reputation. (See *Gnostics*.) The accounts of the latter A. are not to be relied upon with more certainty. These were also called *Picards*, from the founder of their sect, Picard, (perhaps also *Beghards*.) They appeared about the year 1421, on an island in the river Lusinic, where Zisca surprised them, but was not able to destroy the whole sect. In the following year, they were widely spread over Bohemia and Moravia, and especially hated by the Hussites (whom they resembled in hatred towards the hierarchy), because they rejected the doctrine of transubstantiation. They subsequently formed one sect with the remaining Taborites, who have occasionally been confounded with the A.

ADAMS, John, a distinguished patriot of the American revolution, was born at Braintree, Massachusetts, October 19, 1735. The ancestors of Mr. A. had left England for the wilds of America, in order to enjoy their religious opinions unmolested. They were among the first settlers of Massachusetts, Henry Adams, the great-great-grandfather of John, and one of the original proprietors of the town of Braintree, having fled from England, with other Puritans, in the year 1630. Their condition was that of substantial yeomen, who possessed the fee simple of

their lands, and maintained themselves and families by manual labor. Mr. A. having, when yet a boy, evinced great fondness for books, and readiness in learning, his father determined to give him a collegiate education, and placed him, in consequence, under the care of Mr. Marsh (who was afterwards the preceptor of the celebrated Josiah Quincy), that he might be prepared for entrance into the university of Cambridge. He remained in that institution until the year 1755, when he received his bachelor's degree, and in 1758 that of master of arts. Whilst at college, he is said to have been distinguished by intense application, retentiveness of memory, acuteness of reasoning, boldness and originality of thought, strength of language, and an honesty of character which could neither assume nor tolerate disguise. After he had left college, he commenced the study of law, at Worcester, with colonel James Putnam, and, during the period he was so engaged, instructed pupils in the Latin and Greek languages, in order to be able to defray his expenses himself.—Before proceeding farther, it may not be amiss to notice the posture of affairs in Massachusetts at that epoch. For a long time past, that province had been disturbed by almost unremitted contentions between its inhabitants and the parliament of Great Britain, on various important subjects. The English legislature had, in fact, nothing to do with the colonies, as all dominion acquired by conquest or discovery invariably accrued to the king. To him alone the emigrants paid allegiance and applied for protection, and, although parliament always affected to believe itself entitled to regulate their concerns, they received very little interruption from it in the exercise of the privilege granted them by the king of governing and legislating for themselves. In the course of time, however, parliament became jealous of the power, approaching to independence, which they enjoyed, and began to impose unconstitutional restraints upon their commerce, to violate their charters, and, in short, to treat them so arbitrarily, that their spirit was completely roused, and a vigorous resistance called forth. Massachusetts, especially, had become a theatre of perpetual struggle for power on the one side, and for freedom on the other. But it was hitherto only an intellectual warfare, no idea of a separation from the mother country having ever been entertained.—In 1758, Mr. A. left the office of colonel Putnam, and entered that of Jere-

miah Gridley, then attorney-general of the province, and of the highest eminence at the bar. Gridley had, some years previously, superintended also the legal studies of James Otis, and, proud of his two pupils, used often to say, that "he had raised two young eagles, who were, one day or other, to peck out his eyes." In 1759, Mr. A. was admitted, at his recommendation, a member of the bar of Suffolk. Mr. A. commenced the practice of his profession in that part of his native town now called Quincy, but first brought himself into notice by his defence of a prisoner in the county of Plymouth, from which time a sufficiency of lucrative business generally occupied his attention. In 1761, he was admitted to the degree of barrister at law, and shortly afterwards was placed in the possession of a small landed estate by his father's decease. In February of this year, an incident occurred, which inflamed his enthusiasm in the cause of his country's rights to the highest pitch. The British cabinet had long shown a desire to assert the sovereign authority of parliament over the colonies in all cases of taxation and internal policy; but the first evidence of its having determined to do so was an order in council, issued this year, enjoining the officers of the customs in Massachusetts Bay to execute the *acts of trade*, and make application for *writs of assistance* to the supreme judicature of the province. These writs were a species of general search-warrants, authorizing those who were empowered to carry them into effect to enter all houses, warehouses, &c., for the purpose of discovering and seizing such goods as were not discharged from the taxes imposed upon them by the acts. The officers of the customs applied for them, in pursuance of their instructions, to the court at Salem, but the demand was refused, on account of doubts concerning their constitutionality. It was then determined to have the affair argued by counsel in Boston. Great alarm now pervaded the whole community. Mr. Otis was engaged, by the merchants of Salem and Boston, to oppose the concession of so formidable an instrument of arbitrary power. In order to do so with entire freedom, he resigned the lucrative station of advocate-general in the court of admiralty, which he then enjoyed. Of the masterly manner in which he performed his duty, Mr. A., who was present at the discussion, has transmitted a vivid account. "Otis," says he, "was a flame of fire! With a promptitude of classical allusion, a depth

of research, a rapid summary of historical events and dates, a profusion of legal authorities, a prophetic glance of his eyes into futurity, and a rapid torrent of impetuous eloquence, he hurried away all before him. *American Independence was then and there born.*" He afterwards adds, "Every man of an immensely crowded audience appeared to me to go away, as I did, ready to take arms against writs of assistance." Speaking of this discourse on another occasion, he said, "that James Otis, then and there, first breathed into this nation the breath of life."—In 1764, he married Abigail Smith, second daughter of the reverend William Smith, of Weymouth, and grand-daughter of colonel Quincy, of mount Wollaston, a lady every way worthy of her husband, endowed by nature with a countenance singularly noble and lovely, and with a mind whose fine powers were improved by an excellent education. Her ardor in the cause of her country was as elevated as his own, and her piety unaffected and exemplary.—About a year afterwards, Mr. A. published in the Boston Gazette several pieces, under the title of "An Essay on Canon and Feudal Law," which were reprinted in London, in 1768, and called "A Dissertation on Canon and Feudal Law." It is, perhaps, not the smallest proof of its merit, that it was there attributed to Gridley, who at that time enjoyed the highest reputation for ability. The friends of the colonies in England termed it "one of the very best productions ever seen from North America." The name of the real author was afterwards divulged, in 1783, when it was published in Philadelphia, by Robert Bell, in a pamphlet form, with lord Sheffield's observations on the commerce of the American States, and entitled "An Essay on Canon and Feudal Law, by John Adams, Esq." It seems to have been the principal object of the author to extinguish, as far as possible, the blind and almost superstitious veneration of his countrymen for the institutions of the parent country, by holding up to their abhorrence the principles of the canon and feudal law, and showing to them the conspiracy which existed between church and state, for the purpose of oppressing the people. He inculcates the sentiments of genuine liberty, as well as the necessity of correct information on the part of his fellow-citizens, in order that they might be prepared to assert and maintain their rights by force, if force should ever become necessary. It was indeed a work eminently calculated to excite the people

of America to resist, at all hazards, any infringement of their liberties.—In December, 1765, Mr. A. was engaged, as counsel with Mr. Gridley and Mr. Otis, to support, before the governor and council, a memorial presented to the former, from the town of Boston, praying that the courts, which had been closed on account of the opposition to the stamp act, might again be opened. Through their united exertions, the petition was successful. In the same year, he removed to Boston, where he continued in the practice of his profession on a very extensive scale. After he had resided there about two years, the crown officers of the province, thinking, perhaps, that his patriotism was not without its price, made him an offer, through Mr. Sewall (between whom and himself an intimate friendship subsisted, formed at the time when he was studying with colonel Putnam), of the office of advocate-general in the court of admiralty, the most lucrative post in the gift of the governor. This office also was one which conducted its incumbents directly to the highest provincial honors. He refused it, however, as he says in his preface to the late edition of *Novanglus*, "decidedly and peremptorily, though respectfully."—In 1769, he was appointed chairman of the committee, chosen by the town of Boston, for the purpose of drawing up instructions to their representatives, to resist the encroachments of the British government. His colleagues were R. Dana and Jos. Warren. At the time they were thus employed, the metropolis was invested by an armed force, both by sea and land, and the state-house surrounded by a military guard, with cannon pointed at the door. Large majorities of both houses of parliament had signified their approval of the measures adopted by the king; had promised him their support, and besought him to prosecute, *within the realm*, all those who had been guilty of treasonable acts, in Massachusetts, since the year 1767, in accordance with the decree of parliament of the 35th of Henry VIII. Nevertheless, the committee performed their task with undaunted firmness, and reported the instructions which, no doubt, contributed to produce the strong resolutions subsequently adopted by the legislature of Massachusetts. It was on account of these instructions and resolutions, that the *provincial* garrison was withdrawn, by order of the governor, from the castle, and *regular troops*, in the pay of the crown, substituted. The instructions also formed

one of the specific charges made against the colony by the committee of the lords of council for plantation affairs, to the lords of council, July 6, 1770.—A striking example of the firmness and uprightness of Mr. A. occurred during the course of that year. He had, hitherto, been very active in stimulating the people of his province to the strenuous maintenance of their rights, and had thereby aided in producing an excitement greater than he could have wished, and which he found it necessary to counteract. The people of Boston had become exasperated at the idea of a garrison placed in their city, and were extremely hostile to the soldiers composing it. These feelings led to an attack upon a party of them under the command of captain Preston, March 5. They fired on the assailants in self-defence, and killed several of them. The soldiers were immediately arraigned before the civil authority, and Mr. Adams, in conjunction with Josiah Quincy and Mr. Sampson S. Blowers, was requested to aid them upon their trial. Although the minds of the people were inflamed almost to madness, and the defence of the accused seemed to involve a certain loss of popularity, Mr. A. immediately undertook to act as their advocate. Mr. A. was no demagogue; he saw that the honor of his country was at stake, and he rejoiced, as has been well said, in the opportunity of showing to the world, that the cause of America did not depend upon a temporary excitement, which could stifle the voice of justice, but upon the sober, steady, persevering determination of the people to support their rights. The cause was conducted by him and his colleagues with great ability, and the soldiers were all acquitted save two, who were found guilty of manslaughter, received a slight branding as a punishment, and were then discharged. Scarcely any thing which occurred during the revolution confers more honor upon the national character, and did more service to the cause of America, than this triumph of justice.—Mr. A. soon received a proof that the public confidence in him was not diminished, by his election, in May, 1770, to the legislature of his state, as one of the representatives of the town of Boston. His conduct in this new situation displayed the same patriotism, courage and hostility to the despotism of the mother country, by which he had always been distinguished. He took a prominent part in every public measure, and served on several committees, who reported some of

the most important state papers of the time; among which were the address and protest to the governor against the removal of the general court from Boston to Cambridge. In Bradford's History of Massachusetts, we find the following account of a controversy in which Mr. A. was engaged in the year 1773. "The ministerial regulation for paying the salary of the judges, which rendered them wholly dependent on the crown, was the occasion of a learned and able discussion in the public papers, by William Brattle, senior member of the council, and John Adams. The essays of the latter were written with great learning and ability, and had a happy effect in enlightening the public mind on a question of very great importance. It subjected him, indeed, to the displeasure of governor Hutchinson and the ministerial party; and at the next election in May, when chosen by the assembly into the council, the governor gave his negative to the choice. These essays were published in the Boston Gazette of February, 1773, under Mr. Adams's proper signature, and would make a pamphlet of 50 or 60 pages."—In 1774, he was again rejected by governor Gage, and soon afterwards he was appointed one of the committee of the town of Boston, who prepared the celebrated resolutions on the Boston port-bill. June 17, of this year, governor Gage, having dissolved the assembly, this body, before separating, passed a resolution to appoint a committee to meet other committees from other colonies, for the purpose of consulting upon their common interests, and, in consequence, Mr. Thomas Cushing, Mr. Samuel Adams, Mr. John Adams and Mr. Robert Treat Paine were elected to the first continental congress, which met at Philadelphia in the following September. Soon after Mr. A. was chosen, an incident occurred which gives an idea of his feelings on contemplating this great and daring national movement. His friend Sewall, who had taken the ministerial side in politics, and was at that time attorney-general of the province, hearing of his election, invited him to a morning walk, in the course of which he endeavored to dissuade him from his purpose of assuming the seat in congress to which he had been appointed. He told him that the determination of Great Britain to pursue her system was fixed; that her power was irresistible, and would involve him in destruction, as well as all his associates who persevered in opposition to her de-

signs. "I know," replied he, "that Great Britain has determined on her system, and that very determination determines me on mine. You know that I have been constant and uniform in opposition to her designs. The die is now cast. I have passed the Rubicon. Sink or swim, live or die, survive or perish with my country, is my fixed, unalterable determination." On bidding him adieu, Mr. A. said to his friend, "I see we must part, and with a bleeding heart I say, I fear forever. But, you may depend upon it, this adieu is the sharpest thorn on which I ever set my foot." Mr. A. took his seat in congress, Sept. 5, 1774, the first day of their session, and was soon chosen a member of some of the most important committees, such as that which drew up the statement of the rights of the colonies, and that which prepared the address to the king. He and his colleagues carried with them the character of being so thoroughly desirous of independence, that, before they arrived at Philadelphia, warning had been given to them, by many of the most respectable inhabitants of the Middle States, not to utter a word on that subject, as it was as unpopular as the stamp act itself. Almost all the delegates from the other colonies were impressed with the idea that England could be brought to terms, without resorting to a declaration of independence. Washington alone, of the Virginia delegation, was doubtful whether the measures adopted by congress would be efficacious in attaining the object for which they were designed. In one of his letters, Mr. A. says, that Richard Henry Lee used the following language to him, when they parted: "We shall infallibly carry all our points; you will be completely relieved; all the offensive acts will be repealed; the army and fleet will be recalled, and Britain will give up her foolish project." On his return to Massachusetts, he became engaged in a controversy with his friend Sewall, who was writing a series of essays under the appellation of *Massachusettsensis*, for the purpose of vindicating the cause of the government party. Mr. A.'s papers were published in the Boston Gazette, with the signature of *Novanglus*, and exhibit the cause of America in the most triumphant and favorable light.—When Mr. A. resumed his seat in congress the following year, hostilities had in reality commenced between Great Britain and the colonists, though as yet not openly declared, and the blood of numbers of brave men had stained the plains of Lex-

ington and Concord. On receiving the account of this battle, congress determined upon war. It was necessary to fix upon some one for the post of commander-in-chief of the troops which were ordered to be raised. The eyes of all the New England delegation were turned upon general Ward, then at the head of the army in Massachusetts. At a meeting of them, when that officer was proposed for nomination, Mr. A. alone dissented, and urged the selection of George Washington, one of the representatives from Virginia. He was resisted, and left the meeting with the declaration that Washington on the next day should be nominated. He was accordingly nominated, at the instigation of Mr. A., by governor Johnstone of Maryland, and chosen without an opposing voice.—Five days after the appointment of general Washington, Mr. Jefferson made his first appearance on the floor of congress, having been chosen by the people of Virginia to fill the place of Patrick Henry, who had lately been elected the governor of that province. Between this distinguished man and Mr. A. a friendship speedily arose, which subsisted, with a short interruption, during the remainder of their lives.—When Mr. A. returned to Massachusetts, after the dissolution of the congress of 1775, the post of chief justice of the state was offered to him, which he declined, on account of his belief that he should be able to render more effectual service to the cause of his country in its national councils. At the time that he resumed his seat in them in 1776, hostilities were active between Great Britain and the colonies. But the object of the latter was as yet merely to resist the authority assumed by the parent country to impose taxes upon them at pleasure. Few persons entertained the idea of a dissolution of connexion; very few, even of the delegates in congress, seemed to desire it; but among those few John Adams was the foremost. We have already mentioned its unpopularity. As soon as Mr. A. was suspected in Philadelphia of being an advocate of that measure, he was represented constantly in the most odious light, and even pointed at and avoided on appearing in the streets. Still, however, he persevered, made every day proselytes, and, May 6, 1776, moved in congress a resolution, which was, in fact, a virtual declaration of independence, recommending to the colonies "to adopt such a government as would, in the opinion of

the representatives of the people, best conduce to the happiness and safety of their constituents and of America." This passed, after a hard struggle, on the 15th of the same month, and was the prelude to the glorious and daring resolution, moved by Richard Henry Lee, of Virginia, on the 7th of June following, and seconded by Mr. A., "that these united colonies are, and of right ought to be, free and independent states; that they are absolved from all allegiance to the British crown; and that all political connexion between them and the state of Great Britain is, and of right ought to be, totally dissolved." The debate upon this motion was of the most animated character. It continued from the 7th to the 10th, when the further discussion of the measure was postponed to the 1st of July. A committee of five was also appointed to prepare a provisional draught of a declaration of independence. The members of it were chosen by ballot, and were Thomas Jefferson, John Adams, Benjamin Franklin, Roger Sherman, and Robert R. Livingston. Mr. Jefferson and Mr. A. were deputed a sub-committee to prepare the instrument, the former of whom, at the earnest solicitation of the latter, became its author.—On the 1st of July, Mr. Lee's resolution was again considered, and debated during that and the following day, when it was finally adopted. The draught of the declaration was then submitted for the purpose of undergoing an examination in detail. It was passed on the 4th of the same month, as prepared by Mr. Jefferson, with only a few alterations, which were made through a prudent deference to the views of some of the states. Mr. A. always preferred the draught as it originally stood. The declaration was not adopted without serious opposition from many members of the congress, including John Dickinson, one of the ablest men in that assembly. But their arguments were completely overthrown by the force and eloquence of Mr. A., whose speech on the subject of independence is said to have been unrivalled. Mr. Jefferson himself has affirmed, "that the great pillar of support to the declaration of independence, and its ablest advocate and champion on the floor of the house, was John Adams." Speaking of his general character as an orator, the same illustrious man observed, that he was "the Colossus of that congress: not graceful, not elegant, not always fluent in his public addresses, he yet came out with a power, both of thought and expression, which

moved his hearers from their seats."—Mr. Silas Deane, who was a commissioner, with Dr. Franklin and Mr. Arthur Lee, at the court of Versailles, having been recalled, Mr. A. was chosen, Nov. 28, 1777, to fill his place. By this appointment, he was released from the laborious and important duties of chairman of the board of war, which post he had filled since June 13, 1776. It is stated that he was a member of ninety committees, twice as many as any other representative, except Richard Henry Lee and Samuel Adams, of twenty-five of which he was chairman, although it was the policy to put Virginia generally at the head. Among these committees were several of the greatest consequence; one of them was that which was sent to Staten Island at the request of lord Howe, who had solicited an interview with some of the members of congress, which, however, produced no effect, on account of the refusal of his lordship to consider them as commissioners from congress, and the declaration made by Mr. A., that "he might view him in any light he pleased, except in that of a British subject."—About two months after his appointment, Mr. A. embarked in the Boston frigate, and arrived safely at his place of destination, though an English fleet had been despatched to intercept him. The treaties of commerce and alliance with France were signed before he reached that country, and, after remaining there until the following August, he returned to the United States, the nomination of Dr. Franklin as minister plenipotentiary to the court of Versailles having superseded the powers of the commissioners. Immediately on his arrival, he was elected a member of the convention to prepare a form of government for the state of Massachusetts, and placed upon the sub-committee chosen to draught the project of a constitution, to be laid before that body. The general frame of the constitution, particularly the manner of dividing and distributing power, and the clause respecting the duty incumbent upon government with regard to the patronage of literature and the arts and sciences, were the work of his pen. Three months after his return, congress again sent him abroad with two commissions, one as minister plenipotentiary to negotiate a peace, the other to form a commercial treaty with Great Britain. He embarked in the French frigate *Sensible*, Nov. 17, and was forced to land at Corunna, in Spain, from which place he travelled over the mountains to Paris, where he arrived

in Feb. 1780.—After remaining a short time in that city, having found the French court jealous of his commission to form a treaty of commerce with Great Britain, he repaired to Holland in Aug. 1780, the same year in which congress passed a vote of approbation of his conduct, instead of recalling him, as the French minister, count de Vergennes, had solicited them to do, on account of his refusal to communicate to him his instructions about the treaty of commerce, and his opposition to a claim set up by France, that, when congress called in the old continental paper money at forty for one, a discrimination ought to have been made, in favor of the French holders of that paper.—The June previous to his journey to Amsterdam, Mr. A. was appointed in the room of Mr. Laurens to obtain loans in Holland, and, in December of the same year, was invested with full powers to negotiate a treaty of amity and commerce with that country. Mr. A. at first had to contend with great difficulties in Holland. He was opposed by the whole influence of the British government, as well as by the power of the prince of Orange, and even, strange as it may appear, by the intrigues of France herself, the professed friend and avowed ally of the United States. He found the people of Holland entirely unacquainted with the affairs of his country, and immediately began to impart to them information concerning that subject, using, for this purpose, principally, two newspapers, one called the *Leyden Gazette*, and the other *Le Politique Hollandois*, in which he wrote various political articles. He also published a series of twenty-six letters, in answer to a set of queries proposed to him by Mr. Kalkoen, an eminent jurist of Amsterdam, containing an account of the rise and progress of the dispute with Great Britain, and of the resources, spirit and prospects of the United States. These epistles, together with some essays written by Mr. Kalkoen, drawing a comparison between the struggles of the United States for their liberty, and those formerly made by the seven United Provinces, which eventuated in their independence, had a great effect in enlightening the people of Holland, and inspired them with sentiments highly favorable to the American cause. Shortly afterwards, Dec. 21, 1780, a rupture took place between England and Holland, occasioned by the accession of the latter to the armed neutrality, and the discovery of a negotiation between Mr. Lee, the American commis-

sioner at Berlin, and Mr. Van Berckel, the pensionary of Amsterdam, for a treaty of amity and commerce.—Even at this early period, he had formed an opinion decidedly in favor of the establishment of a navy, and expressed it in almost all his letters to his friends at home.—In July, 1781, he was summoned to Paris for the purpose of consulting upon the offer of mediation made by the courts of Austria and Russia, and suggested an answer adopted by the French court, which put an end to the negotiation on that subject; the mediating powers refusing to acknowledge the independence of the United States without the consent of Great Britain.—Oct. 19, 1781, Mr. A., in opposition to the advice of the duke de la Vauguion, the French minister at the Hague, and on his own responsibility, communicated to their high mightinesses his letters of credence, presenting to their president also, at the same time, a memorial, dated April 19, in which he justified the declaration of independence, and endeavored to convince the people of Holland that it was for their interest to form a connexion with the United States, and to give them support in their difficulties. As he had not yet been acknowledged by the States General as the minister of a sovereign and independent nation, the president could not receive the memorial in form, but he engaged to make a report of the substance of what had been communicated to him by Mr. A. In the August previous, Mr. A. had received instructions to propose a triple alliance between France, the United Provinces and the United States, to exist as long as hostilities were carried on by the latter against Great Britain, one of the indispensable conditions of which, on the part of Holland, was the recognition of American independence. The alliance never was effected, but the latter object Mr. Adams accomplished. Jan. 9, 1782, not having received a reply to his memorial, he waited upon the president, and demanded a categorical answer. The States General then took the subject immediately into consideration, and Mr. A. was acknowledged, April 19, as ambassador of the United States to their high mightinesses, and three days afterwards was received as such.—Having obtained assurance that Great Britain would recognise the independence of the United States, he repaired, in Oct. 1782, to Paris, whither he had refused to go before such assurance was given, to commence the negotiation for peace, and there met Dr.

Franklin, Mr. Jay and Mr. Laurens, who, as well as Mr. Jefferson, had been appointed his colleagues. Their instructions, a part of which was "to undertake nothing without the knowledge and concurrence of the ministers of France, and ultimately to govern themselves by their advice and opinion," placed them almost entirely under the control of the French court. They were greatly displeased at being thus shackled, and, after a short time, finding themselves in a very embarrassing situation, they boldly determined to disobey their instructions, and act for themselves and for their country, without consulting the ministers of a supposed treacherous ally. The definitive treaty of peace was ratified Jan. 14, 1784.—After serving on two or three commissions to form treaties of amity and commerce with foreign powers, Mr. A., in 1785, was appointed the first minister to London. It is related that, upon his introduction to the king, the latter, knowing his disgust at the intrigues of the French court, and wishing to compliment him, expressed his pleasure at receiving a minister who had no prejudices in favor of France, the natural enemy of his crown. The reply of Mr. Adams evinced his patriotism and honesty of character. "May it please your majesty," said he, "I have no prejudices but for my own country." In 1787, whilst in London, he published his *Defence of the American Constitutions* against the attacks which they had sustained, and in October of that year, by his own request, he was allowed to return to the United States. Congress, at the same time that they gave him such permission, passed a resolution of thanks to be presented to him for his able and faithful discharge of the various important commissions with which he had been intrusted.—Immediately after his return, Mr. A. was elected the first vice-president of the United States under the new constitution, and re-elected as such in 1793. He discharged the duties of his office until March 4, 1797, when he succeeded to the presidency, vacated by the resignation of general Washington. This great man's confidence he possessed in an eminent degree, and was consulted by him as often as any member of the cabinet. As the two parties in the senate were nearly balanced, Mr. A., while acting, *ex officio*, as president of that body, had often to decide questions, by his casting vote, of the highest importance, and which had excited a great deal of party feeling. One instance of this oc-

curred, when Mr. Clarke's resolution prohibiting all intercourse with Great Britain on account of the capture of several American vessels by British ships, and other grievances, was brought before the senate, after having been adopted by the house of representatives, April 18, 1784. Upon this bill the senators were equally divided, and Mr. Adams decided against it, thinking that it would have no good effect upon the policy of England, would injure us as much as her, and perhaps occasion a war.—In 1797, he became, we have said, president of the U.S. It will not be necessary to enter into a detail of the events of his administration, as they belong rather to the department of the historian than of the biographer. It will be sufficient to mention a few important circumstances. When he commenced the discharge of the duties of his office, he found the government embroiled in a dispute with France, and, in one of his earliest communications to congress, complained, in dignified and eloquent language, of a grievous insult offered by the government of that country to the ambassador of the United States. Wishing still to preserve peace, he despatched a commission consisting of three envoys, Messrs. Pinckney, Marshall and Gerry, to France. The French government treated them in the most contumelious manner. Such, however, was the violence of party spirit, and so large a portion of the American people entertained an enthusiastic admiration of France, that even the measures which Mr. A. then took for sustaining the national dignity had no inconsiderable effect in diminishing his popularity.—Mr. A. was the founder of the American navy. Before his administration, scarcely an American ship of war was to be seen upon the ocean; but, during this period, by his strenuous exertions, mainly, a very respectable naval force was created. His administration, however, was not of long continuance, having pleased neither of the two great parties which divided the country (the greatest praise, perhaps, that it could receive), his measures being too strong for the democrats and too weak for the federalists. In consequence of this, after his term of four years had expired, March 4, 1801, it was found that his adversary, Mr. Jefferson, had succeeded by a majority of 1 vote.—After his retirement to his farm in Quincy, Mr. A. occupied himself with agricultural pursuits, obtaining amusement from the literature and politics of the day. He was nominated as governor of Massa-

chusetts, but declined being a candidate, wishing only for repose. During the disputes with England, which occurred while Mr. Jefferson was in office, Mr. A. published a series of letters, in a Boston paper, supporting the policy of the administration. His published writings, besides those which we have already mentioned, are "Discourses on Davila," composed in 1790, while he was vice-president, and printed in June and July of that year, in the *Gazette of the United States*. In 1816, Mr. A. was chosen a member of the electoral college, which voted for the elevation of Mr. Monroe to the presidency; and, the following year, sustained the greatest affliction that he had ever been called upon to endure, by the loss of his wife. On this occasion, he received a beautiful letter of condolence from Mr. Jefferson, between whom and himself their former friendship, interrupted for a time by the animosities of party, had been revived.—In 1820, he was elected a member of the convention, to revise the constitution of his state, and chosen its president. This honor he was constrained to decline, on account of his infirmities and great age, being then 85 years old; but he attended the convention as a member, and fulfilled the duty incumbent upon him as such. After that, his life glided away in uninterrupted tranquillity, until the 4th of July, 1826, when he breathed his last with the same hallowed sentiment on his lips, which on that glorious day, fifty years before, he had uttered on the floor of congress—"Independence forever." On the morning of the jubilee, he was roused by the ringing of the bells and the firing of cannon, and, on being asked by the servant who attended him, whether he knew what day it was, he replied, "O yes! it is the glorious 4th of July—God bless it—God bless you all." In the course of the day, he said, "It is a great and glorious day," and, just before he expired, exclaimed, "Jefferson survives." But Jefferson had already, at one o'clock, that same day, rendered his spirit into the hands of its Creator.

ADAMS, Samuel, was one of the most remarkable men connected with the American revolution. He was descended from a family that had been among the early planters of New England, was born in Boston, September 27th, 1722, was educated at Harvard college, and received his honors in 1740. When he took the degree of master, in 1743, he proposed the following question; "Whether it be lawful to resist the supreme magistrate,

if the commonwealth cannot be otherwise preserved?" He maintained the affirmative, and this collegiate exercise furnished a very significant index to his subsequent political career.—On leaving the university, he engaged in the study of divinity, with the intention of becoming a clergyman, but did not pursue his design. From his earliest youth, his attention was drawn to political affairs, and he occupied himself, both in conversation and writing, with the political concerns of the day. He was opposed to governor Shirley, because he thought too much power was conferred upon him, and was the friend of his successor, Pownall, as the latter assumed the popular side. He became so entirely a public man, and discovered such a jealous, watchful and unyielding regard for popular rights, that he excited the general attention of the patriotic party, and they took the opportunity, in the year 1766, to place him in the legislature. From that period till the close of the revolutionary war, he was one of the most unwearied, efficient, and disinterested assertors of American freedom and independence. He grew conspicuous very soon after his admission into the house, of which he was chosen clerk, it being then the practice to take that officer from among the members. He obtained the same kind of influence, and exercised the same indefatigable activity in the affairs of the legislature, that he did in those of his town. He was upon every committee, had a hand in writing or revising every report, a share in the management of every political meeting, private or public, and a voice in all the measures that were proposed, to counteract the tyrannical plans of the administration. The people soon found him to be one of the steadiest of their supporters, and the government was convinced, that he was one of the most inveterate of their opponents. When his character was known in England, and it was also understood that he was poor, the partisans of the ministry, who felt annoyed by the "disturbances in America," resorted to the usual practice, when the clamorous grow too troublesome, and proposed that he should be quieted by a participation in some of the good things they were enjoying. Governor Hutchinson, in answering the inquiry of a friend, why he was not silenced in this manner, wrote, with an expression of impatient vexation—"Such is the obstinacy and inflexible disposition of the man, that he never can be conciliated by any office or gift whatever."—He continued in the

legislature till 1774, when he was sent to the first congress of the old confederation. He had been previously chosen secretary of Massachusetts, which office was performed by deputy during his absence. He was one of the signers of the declaration of 1776, which he labored most indefatigably and unhesitatingly to bring forward. He was an active member of the convention that formed the constitution of Massachusetts; and, after it went into effect, he was placed in the senate of the state, and for several years presided over that body. In 1789, he was elected lieutenant-governor, and held that office till 1794, when, after the death of Hancock, he was chosen governor, and was annually re-elected till 1797. He then retired from public life, and died at his house in Winter street, Boston, October 2, 1803, in the 82d year of his age.—He was one of that class who saw very early, that, "after all, we must fight;" and, having come to that conclusion, there was no citizen more prepared for the extremity, or who would have been more reluctant to enter into any kind of compromise. After he had received warning at Lexington, in the night of the 18th of April, of the intended British expedition, as he proceeded to make his escape through the fields with some friends, soon after the dawn of day, he exclaimed, "This is a fine day!" "Very pleasant, indeed," answered one of his companions, supposing he alluded to the beauty of the sky and atmosphere. "I mean," he replied, "this day is a glorious day for America!" His situation at that moment was full of peril and uncertainty, but, throughout the contest, no damage to himself or to his country ever discouraged or depressed him.—The very faults of his character tended, in some degree, to render his services more useful, by concentrating his exertions, and preventing their being weakened by indulgence or liberality towards different opinions. There was some tinge of bigotry and narrowness both in his religion and politics. He was a strict Calvinist; and, probably, no individual of his day had so much of the feelings of the ancient Puritans as he possessed. In politics, he was so jealous of delegated power, that he would not have given our constitutions inherent force enough for their own preservation. He attached an exclusive value to the habits and principles in which he had been educated, and wished to adjust wide concerns too closely after a particular model. One of his colleagues, who knew him well, and estimated him

highly, described him, with good-natured exaggeration, in the following manner: "Samuel Adams would have the state of Massachusetts govern the Union, the town of Boston govern Massachusetts, and that he should govern the town of Boston, and then the whole would not be intentionally ill-governed."—It was a sad error of judgment that caused him to undervalue, for a period at least, the services of Washington during the revolutionary war, and to think that his popularity, when president, might be dangerous. Still, these unfounded prejudices were honestly entertained, and sprang naturally from his disposition and doctrines. During the war, he was impatient for some more decisive action than it was in the power of the commander-in-chief, for a long time, to bring about; and when the new constitution went into operation, its leaning towards aristocracy, which was the absurd imputation of its enemies, and which his anti-federal bias led him more readily to believe, derived all its plausibility from the just, generous and universal confidence that was reposed in the chief magistrate. These things influenced his conduct in old age, when he was governor of Massachusetts, and while the extreme heat of political feelings would have made it impossible for a much less positive character to administer any public concerns, without one of the parties of that day being dissatisfied.—But all these circumstances are to be disregarded, in making an estimate of his services. He, in fact, was born for the revolutionary epoch; he was trained and nurtured in it, and all his principles and views were deeply imbued with the dislikes and partialities which were created during that long struggle. He belonged to the revolution; all the power and peculiarity of his character were developed in that career; and his share in public life, under a subsequent state of things, must be considered as subordinate and unimportant.—His private habits were simple, frugal and unostentatious. Notwithstanding the austerity of his character, his aspect was mild, dignified and gentlemanly. He was entirely superior to pecuniary considerations, and, after having been so many years in the public service, must have been buried at the public expense, if the afflicting death of an only son had not remedied this honorable poverty.

ADAM'S APPLE is a kind of orange, the *citrus aurantium* of Linnæus.—The same name is also given to the protuberance in the fore part of the throat, occasioned by

the projection of the thyroid cartilage of the larynx. This name originated from the tradition, that a piece of the forbidden fruit, which Adam ate, stuck in his throat, and occasioned the swelling.

ADAM'S PEAK; the highest mountain in the island of Ceylon, called by the inhabitants *Ham-al-el*. It lies under $6^{\circ} 49' N.$ lat., $80^{\circ} 43' E.$ lon., and can be seen, in clear weather, from the sea at a distance of 150 miles. It has neither been measured, nor geologically examined. The chief river of the island, Mahavillagonga, the mouth of which forms, at Trincomalee, the best harbor in all India, has its source in this mountain. It is considered sacred by the followers of Buddha, many of whom make pilgrimages to it. The betel-leaf is exchanged by them as a sign of peace, for the purpose of strengthening the bands of kindred, confirming friendships and reconciling enmities. A priest then blesses them on the summit, and enjoins them to live virtuously at home. According to Davy, the road which leads to the summit is, with all its windings, 8 miles long, and in some places very steep. Upon the top, the priests show a footstep which Buddha is said to have made. The place is surrounded by venerable old trees, particularly rhododendra.

ADAMSON, Patrick, a native of Perth, and a distinguished Latin poet, was born in 1536. After having studied at St. Andrews, he visited Paris, Padua and other places distinguished for their universities, and at Geneva imbibed the Calvinistic doctrines from the celebrated Beza. On his return, he escaped from the massacre of St. Bartholomew by flight, and lay concealed a long time at Bourges, where he composed his paraphrase of Job, and some other works. On his return to Scotland, he was appointed minister of Paisley, and afterwards, by the favor and interest of the regent Morton, was raised to the archbishopric of St. Andrews. In this elevated situation, he was surrounded with dangers and difficulties, and the virulence of the Presbyterians was successfully directed against him, as the firmest pillar of episcopacy. James VI, however, patronised him, and sent him as his ambassador to England, where his eloquence and address gained him admirers, and raised such a tide of popularity in favor of the young king, his master, that the jealousy of Elizabeth forbade him again to ascend the pulpit while at her court. His principal objects in England were to gain friends for his master among the nobles, and to support the cause of episco-

pacy in Scotland. In 1584, he was recalled, and so violent was the irritation of the Presbyterians against him, that, at a provincial synod, he was accused and excommunicated; and neither appeals to the king and to the states, nor protestations of innocence, would have saved him from this disgraceful sentence, if he had not yielded to the storm, and implored pardon in the most abject terms. His life continued a scene of persecution; even the monarch grew deaf to his petitions, and alienated the revenues of his see in favor of the duke of Lenox, so that A., in addition to the indignities offered to his office, had to endure the pangs of indigence, in the midst of a forlorn and starving family. He died 1591. A 4to. volume of his works has been published, containing translations of some of the books of the Bible in Latin verse, frequently composed to alleviate his griefs and disarm the terrors of persecution. He also wrote a history of his own times.

ADANSON, Michel, a botanist, born at Aix, 1727, made natural history his favorite study, and chose Réaumur and Bernard de Jussieu for his guides. His emulation was roused by the brilliant success of the system of Linnaeus. He abandoned the study of divinity, and, in the prosecution of his favorite pursuits, made several journeys to regions never yet visited by man. In 1748, at the age of 21, he went to the river Senegal, in the belief that the unhealthiness of the climate would, for a long time, prevent naturalists from visiting this country. He collected, with all the zeal of an enthusiast, invaluable treasures in the three kingdoms of nature; and, perceiving the defects in the established classification of plants, endeavored to substitute another more comprehensive. He also prepared exact maps of the countries through which he travelled, and compiled dictionaries of the languages of the different tribes, with whose manners and customs he had become acquainted. After a residence of 5 years in an unhealthy climate, he returned to his country, in the possession of very valuable collections, and published, in 1757, *Histoire Naturelle du Sénégal*. Some masterly essays of his were printed in the memoirs of the French academy, and procured him the honor of being chosen a member of the institute. These essays were only preludes to his learned and comprehensive botanical work, *Familles des Plantes*, 2 vols., 1763. The work, however, did not effect the object for which it was written,—the establishment of a new system of botany, in

opposition to that of Linnæus. He was preparing a new edition, with numerous alterations and important additions, when he formed the plan of publishing a complete encyclopædia. In hopes of receiving support from Louis XV, he began to collect materials, which, in a short time, increased to an immense mass; and in 1775, he laid before the academy a prospectus of a work, on so large a scale as to excite general astonishment. It was carefully examined, but the result did not answer the expectations of the author. A's plan was good, but he was wrong in insisting upon the immediate publication of the whole. This obstinacy is the reason that the work has never been printed. He continued, however, to increase his materials with unwearied diligence. Some valuable essays, printed in the memoirs of the academy, are all of his writings that subsequently came before the public. The idea of executing his great work continually occupied his mind, and he employed all his means for this purpose. But the revolution reduced him to extreme poverty, and when the national institute chose him one of its members, he declined the invitation because he had no shoes. A pension was then conferred upon him, which he enjoyed till his death, in 1806, continually employed in preparing his great work. The number of his printed books is small, in comparison with the mass of manuscripts which he has left. A good selection of these would be very acceptable to the literary public.

ADDINGTON, Henry, lord viscount Sidmouth, son of a physician, who united with the study of his profession a love for politics. Henry A., born in 1756, was educated with Pitt, the son of lord Chatham. The splendid career of his friend opened to him also the path to distinction. As a member of parliament, he supported Pitt against Fox with all his power. In 1789, A. was chosen speaker of the house of commons, and continued in this honorable office, even after the convocation of a new parliament. Ever faithful to the party of Pitt, he only once disagreed in opinion with his friend on the motion of Wilberforce, in 1792, to abolish the African slave trade, and voted for its gradual abolition. Through his influence, the time of prohibition was deferred till 1800. But this temporary difference of opinion neither destroyed their intimacy, nor prevented their agreement in the same general system of politics. Feb. 5, 1801, Pitt resigned the office of chancellor of the exchequer in favor of A. While in this

office, A. made several reports on the state of the finances in England, on the necessity of new loans, &c. He was an advocate of peace, after the treaty of Amiens, which was considered to have been brought about by him. But as soon as the treaty was violated, he proposed measures of hostility, and showed himself one of the warmest advocates of war. His enemies attempted to injure him, during the period of the king's illness, in the beginning of 1804; but the sudden recovery of the king frustrated their designs. New attacks, however, compelled him to leave his station, to which Pitt was again raised, May 10. The king then conferred upon him the title of lord viscount Sidmouth, and honored him with his confidence. In January, 1806, he became again connected with the government, as keeper of the great seal, but soon resigned this office. In 1812, when lord Liverpool was appointed first lord of the treasury, in the place of Mr. Perceval, who had been murdered, lord Sidmouth again took his seat in the cabinet, as secretary of state for the home department, but retired from office in 1822. Mr. Peel was his successor.

ADDISON, Joseph, a poet and miscellaneous writer, was born at Milston, Wiltshire, where his father was rector, in 1672, and died 1719. He received the first part of his education in his native place: at the age of 11, his father having been appointed dean of Litchfield, he became a pupil of Mr. Shaw. But we have no account of his early character, except that he distinguished himself in a *barring out*. At the age of 15, he was entered at Queen's college, Oxford, where his Latin poem on the inauguration of William and Mary obtained his election into Magdalen college, on the founder's benefaction. His other Latin poems may be found with this in the *Muse Angelicæ*, collected by himself. In 1693, having taken the degree of master of arts, he published his first attempt in English, some verses inscribed to Dryden, with a translation of part of the fourth Georgic of Virgil, and other pieces in prose and verse. In 1695, he wrote a poem "To King William," and obtained the patronage of lord Somers, keeper of the great seal, by addressing it to him. Having declined entrance into holy orders, he obtained a pension of £300 by the influence of Somers, and Montague, chancellor of the exchequer, to enable him to travel; and in 1701, he wrote the Poetical Epistle

from Italy, to Montague, now lord Halifax, of which Dr. Johnson says, "It is the most elegant, if not the most sublime, of his poetical compositions." During his travels, he began his tragedy of Cato, and composed the Dialogues on Medals, and, after his return, which was hastened by the loss of his pension, he published his Travels. In Johnson's opinion, this work might have been written at home. In 1704, at the request of lord Godolphin, A. celebrated the victory of Hochstadt, or Blenheim, in a poem called the *Campaign*. Before it was finished, it procured for him the office of commissioner of appeals, in which he was the successor of Locke. About this time, he wrote also the opera of Rosamond, which was hissed from the stage, but was published with success. The next year he accompanied lord Halifax to Hanover, and was soon after chosen under-secretary of state. In 1709, he went to Ireland as secretary to the earl of Wharton, and was at the same time appointed keeper of the records in Bermingham's tower, with an allowance of £300 per annum. While A. was in Ireland, Steele, the friend of his youth, began the publication of the *Tattler*, a series of essays on literature and manners: to this paper A. became a contributor. The first number of the *Tattler* appeared in 1709, and was succeeded, in March, 1711, by the *Spectator*, which was continued daily till December, 1712. Some time afterward, the *Guardian* was undertaken by Steele, and to this A. contributed. His papers in the *Spectator* are marked by one of the letters in the name *Clio*, and in the *Guardian*, by a *hand*. After the publication of the *Guardian*, the *Spectator* was revived, and the eighth volume completed. In this his papers are not distinguished by any mark. The popularity of these works was very great, 20,000 copies of the *Spectator* being distributed at one time, and they yet stand among the classics of English literature. This preëminence is owing to the genius of A. This kind of writing was new, and more adapted to produce an effect on the great mass of society than any literary productions which had preceded it. It is the prolific mother of modern periodical literature. It describes and criticises the manners of the times, delineates character, exposes the follies and reproves the vices which fashion countenances. It has contributed much to reform the taste of the English nation. A.'s papers, in these works, may be divided into the comic, the serious and

the critical. His humor is peculiar, his satire easy and delicate, and his wit is always on the side of truth and virtue. His serious papers are distinguished by beauty, propriety and elegance of style, not less than by their pure tone of morality and religion. They are a code of practical ethics. His critical essays contain many just remarks, conveyed in an easy and popular manner, and display the results of much study and delicate taste. In 1713, A.'s tragedy of Cato was represented with very great success. It had a run of 35 nights, and was always received with applause. This was undoubtedly owing to party feelings; the whigs hailing whatever was favorable to liberty in the production of a whig, and the Tories reëchoing the approbation, to show that they did not feel the censure it was supposed to convey. But, although not calculated to engage an English audience, the poetry is fine, and the principal characters well supported. A. was afterwards engaged in several periodicals, principally political, went again, as secretary of the viceroy, to Ireland, and was appointed one of the lords of trade. In 1716, he married the countess of Warwick, who was won with difficulty, and whose haughty treatment of him often drove him to a tavern. The year after his marriage, he was appointed secretary of state; but his inability to speak in public, and his solicitude about the elegance of his expressions, rendered him unfit for the duties of the office, and he soon retired, with a pension of £1500. His principal work, after this, was the *Evidences of Christianity*, a work useful at the time, as recommending the subject by elegance and perspicuity to popular notice, but since superseded by more complete treatises. His death was that of a Christian philosopher. Before he expired, he sent for his pupil, lord Warwick, a young man of loose life, and addressed him in these words: "I have sent for you that you may see how a Christian can die." This scene is alluded to in the lines of Tickell on his death:

"He taught us how to live, and—oh! too high
The price of knowledge—taught us how to die."

He was buried in Westminster abbey. A. was a sincere believer in the Christian revelation; in politics earnest, but not violent, he was respected, if not beloved, by individuals of both parties. Serious and reserved in his manners, modest and even timid in society, he spoke little before strangers. "I have never," said lord Chesterfield, "seen a more modest, or a

more awkward man;" but he was easy, fluent and familiar, in the company of his friends. He studied all the morning, dined at a tavern, and spent the evening at Button's, a coffee-house frequented by the wits of the time. As a poet, he is distinguished for taste and elegance, but is destitute of high poetic genius. His prose is remarkable for its purity, perspicuity and simplicity, and for the higher graces of harmony and richness of metaphor. It is the sentence of the great judge of English literature, that "he who would write English with correctness and elegance must give his days and nights to the study of Addison." His chief works are the tragedy of Cato, his papers in the Tattler, the Spectator and the Guardian, and the Evidences of the Christian Religion.

ADDRESS. In modern times, importance has been given to the manifestation of public opinion to the sovereign, in the form of addresses; and governments, in difficult emergencies, have in turn addressed the people. A communication from the rulers to the citizens is called a *proclamation*. In France only, at the time when the sovereignty of the people was acknowledged, the higher authorities sent addresses to the people. An address is essentially different from a petition, since it contains only an expression of thanks, satisfaction or dissatisfaction, communicates information, justifies measures, &c. This practice owes its origin to the British parliament, which is accustomed to answer the king's speeches, delivered at the commencement and close of each session, by a public acknowledgment of the obligations of the nation. The same custom is adopted by the congress of the United States. (See *Jefferson's Manual of Parliamentary Practice*.) The constitutions of the several German states grant this right in a very limited sense. In Wurtemberg, it has been declared unconstitutional, in reference to the army, and in Bavaria, the estates have only the right of transmitting petitions to the king, and of complaining against the ministers of state. The right of the citizens, in associations or otherwise, to present addresses, is connected with the right of complaining, convoking assemblies and signing in a body. It is obvious, that addresses of thanks and satisfaction, like those with which Napoleon was so much pleased, are of importance only in case the expression of public opinion is free.

ADELM. (See *Adhelm*).

ADELUNG, John Christopher. This

scholar, distinguished for his exertions to improve the literature and language of his country, was born August 8, 1732, at Spantekow, in Pomerania, where his father was a clergyman. He received his first instruction partly at Anklam, partly at Klosterbergen, near Magdeburg, and finished his education at Halle. In 1759, he was appointed professor in the Protestant academy at Erfurt; but, two years after, ecclesiastical disputes caused him to remove to Leipsic, where he applied himself, with indefatigable activity, to the extensive works by which he has been so useful to the German language and literature, particularly his *Grammatisch-krit. Wörterbuch der hochdeutschen Mundart*. Leipsic, 1774—86, 4 vols. and 1st half of the 5th. In 1787, he received, from the then elector of Saxony, the place of first librarian of the public library in Dresden. This office he held till his death, Sept. 10, 1806. A. has alone performed for the German language what whole academies have done for others. His grammatical, critical dictionary surpasses the English lexicon of Johnson in the accuracy and order of the definitions, and more especially in the department of etymology, but is inferior to it in the selection of classic authorities, because A.'s predilection for the Upper Saxon, or Misnian authors, induced him to neglect those writers whose country or style he disliked, and his taste was so limited, that he would not allow of any deviation from the established forms and settled laws of style. His methodical mind was struck with terror at the irregularities and the flood of new words with which he thought the German language menaced, and could not appreciate its admirable flexibility and copiousness, in which it is equalled by the Grecian alone. Voss and Campe have animadverted upon this defect with great truth, but perhaps with too little forbearance. The second edition of the dictionary of A., 1798—1801, contains a number of additions which are valuable in themselves, but in no proportion to the progress which the language has made in the mean time, and show too plainly that the most unwearied industry cannot compensate for a defective plan. (See *German Language*.) Of A.'s other works, we would mention his German grammar, his *Magazin für die Deutsche Sprache*, his work on German style, his *Älteste Geschichte der Deutschen*, his *Directorium*, important for its exposition of the sources of the history of the south of Saxony, Meissen, 1802, 4to., and his *Mithri-*

dates, in which last work he designed to store up the fruits of all his investigations, but finished only the first volume; for the three others, we are indebted to the lexicographer Vater, of Halle, who employed for this purpose, partly the papers of the deceased, partly the materials collected by A. and W. von Humboldt, and partly the results of his own inquiries. A. was a man of blameless morals and amiable temper. He was never married. He daily devoted 14 hours to labor.

ADELUNG, Frederic von, since 1825, president of the Asiatic academy at St. Petersburg, a nephew of the lexicographer, was born at Stettin, 1768, and has distinguished himself as a historian and linguist. Having previously made himself intimate at Rome with the treasures of the Vatican library, and published some interesting disquisitions on the old German poems to be found there (Königsberg, 1796 and 1799), he went to Petersburg, where he took part in the direction of the German theatre. In 1803, he was appointed tutor of the grand princes Nicholas and Michael, and received an order of nobility. He then applied himself with great assiduity to the study of languages, in which he was much assisted by the collection of Backmeister, the librarian. He has written on the *Rapports entre la Langue Sanscrite, et la Langue Russe*. At the request of his patron, count Romanzoff, chancellor of the empire, he published a description of the remarkable doors of brass belonging to the church of St. Sophia, in Novgorod, which were said to have been cast in Magdeburg in the 11th century, and the most exact engravings of which were prepared by the order of the count. This work, which appeared at Berlin, 1823, with copper and lithographic plates, contains interesting contributions to the history of Russian art, and an essay on the Swedish, or silver door, so called, then in Novgorod, which was brought to Russia, as a trophy, from Sigtuna, the ancient royal residence of Sweden. A. is now preparing a *Bibliotheca Glottica*, an introduction to which has already been published, entitled *Uebersicht aller bekannten Sprachen*, Petersburg, 1820.

ADEPT. (See *Alchemy*.)

ADERSBACH MOUNTAINS. These extend, with some interruptions, from Adersbach, a village of Bohemia, to the county of Glatz. Numerous clefts of various size are found among the rocks, which rise in strange forms more than

100 feet high, and consist of a remarkable kind of ferruginous sand-stone. Rain and snow, filling the cavities of the surface during the winter, form collections of water, which gradually filters through the rocks, and produces these clefts. The sand-stone itself has, in the course of time, become very brittle, especially on the surface. The place is a great resort for travellers.

ADES. (See *Pluto*.)

ADELM, or ADELM, was born in Wiltshire, in the seventh century. He was made bishop of Shireburn, and extraordinary tales are related of his miraculous powers, and his voluntary chastity. He was, for the times, an eminent scholar, being acquainted with Grecian and Roman literature, a good writer, a poet of some merit, and an excellent musician. His works, which were numerous, are mostly lost.

ADHESION, according to the latest phraseology of physics, means generally the tendency of heterogeneous bodies to stick together; but *cohesion* implies the attraction of homogeneous particles of bodies. Adhesion may take place between two solids, as two hemispheres of glass, or between a solid and a fluid, or between two fluids, as oil and water. Thus it is said that a fluid adheres to a solid, as water to the finger dipped into it. But there is a great difference, in this respect, in different bodies; thus small particles of quicksilver do not adhere to glass, but they adhere to gold, silver and lead. Water adheres to the greatest part of bodies, unless it is separated from their surface by oily substances, dust, flour, &c. Fluids do not form a surface perfectly horizontal in vessels to which they adhere so as to wet them, but rise, on the contrary, around the brim of the vessels. This is proved by water, beer, &c. poured into glasses, pails, pots, &c. Fluids, on the other hand, in vessels to which they do not adhere, sink around the brim, and rise in the centre. Thus quicksilver in a glass forms a convex surface. This phenomenon of the rising and sinking of fluids becomes still more remarkable in vessels of a small diameter; wherefore capillary tubes, so called, are used for performing experiments, and the singular effects produced are ascribed to capillary attraction. (See *Capillary Tubes*.) Water poured from a vessel to which it adheres so as to wet it, runs easily down the exterior surface, unless a peculiar direction is given to the vessel. This is never the case with quicksilver poured from a glass;

but it is so if poured from a vessel of lead, &c.

ADIAPHORA (*Greek*); things indifferent in themselves, and of small importance: 1. objects and actions which deserve neither praise nor blame; 2. in matters of church discipline, customs and rites which may be retained or rejected without injuring belief or troubling conscience, because the holy Scriptures have neither forbidden nor ordained them. This name was originally applied to those instruments and ceremonies of the Catholic church, which the Protestants admitted into their forms of worship, as altars, candlesticks, images, mass-vestments, Latin hymns, vespers and orisons, private mass, &c. On account of this admission, Flacius, a theologian of Jena, in connexion with the clergy of Lower Saxony, commenced a controversy, known by the name of the *adiaphoristic controversy*, with Melancthon and the divines of Wittenberg, who received the name of *Adiaphorists*. The same trifles became subsequently marks, by which the strict Lutherans were externally distinguished from the Calvinists, who had retained nothing of this kind. The more enlightened theologians of the 18th century caused the greater part of these external distinctions to be laid aside; but new importance has been attached to them in our days; and the question has again been discussed, "what ceremonies belong to the A."

ADIPOCIRE, from *adepts*, fat, and *cera*, wax; a substance of a light-brown color, formed by the soft parts of animal bodies, when kept for some time in water, or when preserved from atmospheric air. When this substance is subjected to a chemical analysis, a true ammoniacal soap is first yielded, composed of ammonia, a concrete oil, and water. The oil may be obtained pure, and this is called more strictly A. It was discovered on removing the animal matter from the burial ground of the church *des Innocens*, at Paris, in 1787, amongst the masses of the bodies of the poor there interred together. In this place, about 1500 bodies were thrown together into the same pit, and, being decomposed, were converted into this substance. (See *Nicholson's Journal*, vol. 4, p. 135; *Phil. Trans.* 1794, vols. 84, 85; *Journal de Physique*, tom. 38, &c.)

ADJUTANT; in the military art, an officer whose duty is to assist the major.

ADJUTANT-GENERAL; an officer of distinction who assists the general.—Among the Jesuits, this name was given to a se-

lect number of fathers, who resided with the general of the order, and had each a province or country assigned to him, and their office was to inform the father-general of public occurrences in such countries.

ADMETUS. (See *Alceste*.)

ADMINISTRATOR (*Latin*); the person to whom the goods of a man dying intestate are committed by the proper authority, for which he is accountable when thereunto required. For matters relating to this title, see *Executor*.

ADMIRAL; the commander-in-chief of a squadron or fleet of ships of war, or of the entire naval force of a country. Probably this word is of Arabic origin, and signifies originally *the emir*, or prince, *of the waters*. In the time of the crusades, the office and name were introduced into Europe. The first authentic instance that occurs of admirals in Europe is about 1284, when Philip, king of France, created Enguerrand de Coucy admiral of his fleet. In the reign of Edward I, king of England, we find a title of honor, "*Admiral de la mer du roy d'Angleterre*," conferred for the first time on W. de Leybourne; and about this time the jurisdiction of the English seas was committed to three or four admirals, who held the office *durante bene placito*. From the time of Edward II, a regular succession of admirals is to be traced; and in the 34th year of Edward III, John de Beauchamp, lord warden of the Cinque Ports, was created high admiral of England. The office underwent several changes, and persons of high rank, some of whom were entirely unacquainted with naval affairs, continued to fill this office until 1632, when it was first put into commission, as it remained during the protectorate of Cromwell. James, duke of York, afterwards James II, exercised the functions of lord high admiral for several years of Charles II's reign. Many of his regulations are observed to the present time, and evince his zeal for this most important service in England. During the reign of William and Mary, the powers of the lord high admiral were committed to *lords commissioners of the admiralty*. Prince George of Denmark enjoyed this dignity during a short period of the reign of Anne; since which time it has always been vested in seven lords commissioners, acting under the statute of William and Mary, till the year 1827, when the first step of Mr. Canning, as premier, was to prevail on the duke of Clarence to accept the office of lord high admiral; but

the duke, soon after the formation of the duke of Wellington's administration, gave up the office. The income of the first lord-commissioner is at present equal to £5000 per annum. The surplus revenue forms what are called the *droits* of admiralty, and is applied at the pleasure of government. To the lord high admiral, or lords commissioners of the admiralty of England, belongs the power of decision in all maritime cases, both civil and criminal; a jurisdiction upon or beyond the sea in all parts of the world; upon the sea coasts in all ports, havens or harbors, and upon all rivers below the bridge nearest to the sea:—according to the terms of the patent, "To preserve all public streams, ports, rivers, fresh waters and creeks whatsoever, within his jurisdiction, as well for the preservation of the ships as of the fishes; to reform too straight nets and unlawful engines, and punish offenders; to arrest ships, mariners, pilots, masters, gunners, bombardiers, and any other persons whatsoever, able and fit for the service of ships, as often as occasion shall require, and wheresoever they shall be met with; to appoint vice-admirals, judges and other officers *durante bene placito*; to remove, suspend, or expel them, and put others in their places; to take cognizance of civil and maritime laws, and of death, murder and main." The lord warden of the Cinque Ports has, nevertheless, a jurisdiction exempt from the control of the admiralty within these ports, and the lord admiral seems to have his more proper jurisdiction confined to the main sea. Between high and low water marks, the common law and the admiralty have jurisdiction by turn. By the regulations of the navy, the lord high admiral grants commissions to inferior admirals to enforce obedience in all the branches of the service; to all courts-martial for the trial of offences against the articles of war, upon which they decide by the majority of votes, a deputy judge advocate, who resides at Plymouth, presiding over those of most importance. To the office of lord high admiral are given, as perquisites, by the patent, "treasure, deodands and relics found within his jurisdiction; all goods picked up at sea; all fines, forfeitures, ransoms, &c.; all whales and large fishes; all ships and goods of the enemy coming into any port, &c. by stress of weather, mistake or ignorance of war; all ships seized at sea, salvage &c., together with his shares of prizes. In ancient times, this officer carried a gold whistle set with

precious stones.—In France, the admiral (*l'amiral*) enjoyed, until 1627, very great prerogatives; but Richelieu, deeming the influence of the office too great, abolished it. Louis XIV reestablished it in 1669 with less power. In the revolution, this office, of course, vanished with the abolition of the monarchy. Napoleon renewed the office, and invested his brother-in-law Murat with it. The duke of Angouleme was the first admiral after the restoration of the Bourbons. The highest officers in the French navy have only the title vice-admiral; after these follow the rear-admirals (*contre-amiraux*).—ADMIRAL OF THE FLEET; the highest naval officer under the admiralty of Great Britain, who, when he embarks, is distinguished by the hoisting of the union flag at the main-top-gallant-mast head.—The powers of the lord high admiral of Scotland have been vested, since the union, in the admiralty of Great Britain, which appoints a judge, or vice-admiral, who executes its duties, and presides over an admiralty court in Scotland.—Admirals, being commanders in chief of any fleet or squadron, carry their flags at the main-top-gallant-mast head, from which they are designated as admirals of the red, of the white, of the blue. They rank with field-m Marshals in the army. The vice-admiral carries his flag at the fore-top-mast head, and takes rank with the lieutenant-generals of the army. The rear-admiral carries his flag at the mizzen-top-mast head, and ranks with major-generals.—The United States have no admirals. The board of the navy directs all the affairs of the navy.—The vice-admiral is a civil officer, appointed by the lords commissioners of the admiralty, having judges and marshals under him. From his decisions, however, there is a final appeal to the court of admiralty. The place of *vice-admiral of England* is now a sinecure. Ireland has four vice-admirals; Scotland one; and the governors of colonies generally hold a commission to preside over vice-admiralty courts. A. is also a name given to the most considerable ship of a fleet of merchantmen, or of the vessels employed in the cod-fishery of Newfoundland. The ship which first arrives is entitled to this appellation, and some privileges; it carries during the fishing season a flag on the main-mast.—A. in natural history, a very beautiful shell of the *voluta* genus. It is sold at a very high price.

ADMIRALTY COURTS have cognizance of civil and criminal causes of a maritime nature, including captures in war

made on the high seas, and likewise offences committed, and many contracts made thereon. In civil suits, the judges decide unaided. In criminal cases, the judge in England is associated with three or four commissioners; in the United States, he is assisted by a jury. In the latter country, the admiralty jurisdiction is vested in the circuit and district courts of the Union. In England, it is divided between the instance and the prize courts, the former being the ordinary admiralty court, the latter being constituted by a special commission, in time of war, to take cognizance of prizes, though the individuals composing the court are the same in both cases.

ADMIRALTY ISLANDS; a cluster of islands to the north of New Britain, in the South Pacific ocean, in about $2^{\circ} 18' S.$ lat. and $146^{\circ} 44' E.$ lon. There are between 20 and 30. The Dutch discovered them in 1616. The islanders are black, but not of a deep shade; tall, and almost in a state of nudity. They evinced much kindness towards La Perouse. A. I. is likewise an island in George III's Archipelago, on the north-west coast of New Norfolk, in America, between N. lat. 57° and $58^{\circ} 30'$, and between W. lon. 134° and 135° . (See *Vancouver's Voyage*, vol. iii.)

ADOLPHUS of Nassau was elected emperor of Germany, May 1, 1292, and crowned at Aix la Chapelle, June 25. He was of an illustrious family, and of approved courage; but without any patrimony, except his sword, and destitute of those great qualities, which had raised his predecessor, Rodolph of Hapsburg, to the throne. A. owed his election, in part, to the arrogant conduct of Albert of Austria; in part, to his intrigues with the electors of Cologne and Mentz, who imposed on him the hardest conditions, and forced him to resign to them cities and territories, which were not his own. But, refusing to fulfil, when emperor, what he had promised when count, he soon saw himself hated and deserted by his friends. Urged by want of money, he received 100,000 pounds sterling from Edward I of England, and, in return, engaged to assist him against Philip the Fair of France; but he was by no means sorry to see the pope forbid his participation in the war. In this way he made himself contemptible in the eyes of the German princes, and became still more odious to them by taking advantage of the hatred of Albert, landgrave of Thuringia, against his sons, and purchasing this territory from him.

This purchase involved him in a 5 years' war, in which he attempted, unsuccessfully, to subjugate the country which he had bought. Disgusted at such disgraceful conduct, and urged on by Albert of Austria, the college of electors, excepting those of Treves, Cologne and the Palatinate, cited Adolphus to appear before it. Failing to appear, the throne was declared vacant, June 23, 1298, and Albert of Austria elected. A war already existed between the two rivals, in which Adolphus seemed superior, until, deceived by the manœuvres of his foe, he found himself surrounded at Gellheim, and fell, after a heroic resistance, by Albert's own hand, July 2, 1298. His body was deposited by Henry VII in the imperial vault at Spire, at the same time with that of Albert. His faults sprung mostly from the inadequateness of his abilities to his situation. One mistake followed another, and when, in the latter part of his career, he wished to adopt a better course, it was too late.

ADONAI; one of the many Hebrew names for God. The word properly signifies *my lords*, in the plural number, which is called, in the Hebrew grammar, *pluralis majestatis*. The Jews, who, from religious reverence, do not pronounce the name *Jehovah*, read *Adonai* in all the places in which the former name occurs. This practice commenced among the latter Jews after the Babylonish captivity, at least before the time of Josephus. (See *Geddes' Crit. Remarks*, vol. i, p. 167, and *Leigh's Crit. Sacr.* in verb. *Κύριος*.)

ADONIC. The Adonic verse consists of a dactyle and a spondee or trochee, e. g.

rārā jūvēntūs;

and, on account of its animated movement, is adapted to gay and lively poetry. Long poems, however, would become monotonous if written entirely in a measure so short, and recurring with no variety. It is therefore rarely used by itself. Even the ancients always combined it with other kinds of verse; thus the last verse of the Sapphic strophe is Adonic.

ADONIS; son of Cinyras by his daughter Myrrha. The wood-nymphs educated him, and he grew up so remarkably beautiful, that he became the favorite of Venus, who accompanied him to the chase, pointing out the dangers to which he was exposed. A., disregarding her advice, eagerly pursued the wild beasts of the forest, but, happening to fall in an attack upon a wild boar, he was mortally

wounded by this ferocious animal. The goddess, hearing of his misfortune, hurried to his assistance, and in her haste her foot was wounded by a rose-bush, the flowers of which, formerly white, from that time took the color of blood. When she reached the spot, she found him lifeless on the grass, and, to alleviate her grief and preserve his memory, she transformed him into an anemone. At her request, however, Jupiter permitted A. to spend 6 months with her, and the other 6 with Proserpine. A full explanation of this fable may be found in *Creuzer's Symbolik und Mythologie der Völker des Alterthums*.

ADOPTIANI; a religious sect which asserted that Christ, as to his divine nature, was properly the Son of God; but, as to his human nature, only such by adoption, by baptism and regeneration, through which God's mercy adopts other men also as his children; for they could not comprehend how a human being could be called the *Son of God* in a literal sense. Flipandus, archbishop of Toledo, and Felix, bishop of Urgel, in Spain, avowed this doctrine in 783, and made proselytes both in Spain and France. Charlemagne condemned their heresy at the council of Ratisbon, and dismissed Felix from his office. This sentence was repeated 3 times; at Frankfort, 794, at Rome and at Aix la Chapelle in 799, because the bishop relapsed twice into his former error. He was then placed, for the remainder of his life, under the care of the bishop of Lyons. After the death of Flipandus, the whole controversy ceased. The dispute is worthy of notice, both on account of the moderation of Charlemagne, and because the opinion of the Adoptiani has often been made use of by those who have exerted themselves to adapt the doctrine of the divinity of Christ to the comprehension of man. (See *Socinians*.)

ADOPTION, the admission of a stranger by birth to the privileges of a child, has come down to us in the Roman law. Its purpose was the acquisition of paternal power, which could either be ceded to the person adopting by the natural parent (adoption in the strictest sense), or be obtained by the assent of a person no longer under the *patria potestas*, or of his guardians. This second sort is called *arrogation*. According to the ancient civil law, the adopted child left the family of its parents or guardians, and became a member of the family of the person adopting it. The emperor Justinian abolished this prin-

ciple in regard to adoption properly so called. Adoption was intended to supply the want of offspring in those persons who might have been parents. Eunuchs, therefore, and persons already having legitimate issue, were excluded from this privilege. The person adopting must have been at least 18 years older than the person to be adopted. Guardians were not permitted to adopt their wards, nor a poor man a rich child. Females, strictly speaking, were not permitted to adopt, but might, with the permission of the sovereign, secure to any child the right of support and inheritance. In Germany, the rules respecting adoption are derived from the civil law, but require the sanction either of the sovereign or of the judiciary. (*Civil Code of Austria*, l. 179; *Prussian Code*, part 2, tit. 2, § 666.) The adopted child receives the name of its adopter, but does not share in his rank if he be a nobleman, except by the special permission of the sovereign. In Prussia, a married couple must have lived many years without children, before they are allowed to adopt a child. The modern French law (*Code civile*, a. 343) also admits adoption, but only on certain conditions. The code establishes three kinds of adoption—*l'adoption ordinaire, la rémunératoire, et la testamentaire*. Those who wish to adopt must have supported the person to be adopted for six years, or the adopter's life must have been saved by the person to be adopted. Excepting in this last case, the latter must be as much as fifteen years younger than the former. Adoption (excepting as before) cannot take place until the person to be adopted is of age, and must be ratified by the district court as well as by the court of appeal. There is nothing corresponding with adoption in the law either of England or America. In Asia, adoption is a very common practice. The ceremony is frequently performed merely by the adopting person exchanging girdles with the person adopted. The Turks declare adoption often before the *cadi*, and a writing regularly witnessed is drawn up. The law of Mahomet prescribes still another very curious ceremony of adoption. The person adopted is required to pass through the shirt of the adopter; and hence the phrase to *draw another through one's shirt* is, among them, expressive of adoption. An adopted son is called *akietogli*, that is, *the son of another life*. Several writers have applied this ceremony as explanatory of many passages both of the Old and New Testaments.

ADORATION; originally, the expression of the highest respect either to God or man; now used, more particularly, for the act of religious homage. The word literally signifies applying the hand to the mouth; *manum ad os admove*re, i. e. to kiss the hand. The word *kissing* is the usual idiom of the Hebrew language to signify adoration. Herodotus considers the custom of kissing the hand in adoration to have been adopted by the Greeks from the Persians. It certainly prevailed at an early period all over the East. The Roman ceremony of adoration has been thus described: the devotee, having his head covered, applied his right hand to his lips, the fore finger resting on his thumb, which was erect, and, thus bowing his head, turned himself round from left to right. The kiss given was called *osculum labratum*. Sometimes, however, they kissed the feet or even the knees of their gods. The Grecians generally worshipped uncovered. During their prayers, their hands were raised above their heads with the palms turned towards heaven or the statues of their god; a custom still often seen, in Catholic countries, accompanying fervent prayer; but generally the Christians clasp their hands during prayer, which is still the custom in Europe, both among Catholics and Protestants. The first Christians often turned the face towards the east when they prayed. The Mahometans turn the face towards Mecca. Prostration, accompanied sometimes by kissing the ground, is an ancient mode of adoring the gods, and expressing the highest respect for men. In Russia and Poland, it is still the custom for people of the lower classes to kneel down and kiss the garment of the person to whom they wish to show respect. Diocletian offered his foot to be kissed by the courtiers, and even under Charlemagne and his son, the noblemen kissed the emperor's foot. Probably, therefore, the popes took this custom from the emperors, to whose power they laid claim in succeeding to their title of sovereign pontiff. They have an embroidered cross on the slipper of their right foot, which is kissed by the Catholics. When the late king of Spain was in Rome, he prostrated himself before the pontiff, and kissed the cross on his foot. There is no doubt that the Roman emperors borrowed this custom from the East. In the primitive Christian church, this honor is said to have been shown to every bishop, as it often is still in the Greek church. In kissing the bishop's

foot, the words *προσκυνῶ σε* were, and still are used. The Jews, being an Asiatic tribe, often prostrated themselves in the act of worship. (See *Joshua*, *Judges*, *1 Chron.*, *Ezekiel*, &c.) Taking off the shoes or slippers during adoration is an old custom in Asia. It is also practised on common occasions as an act of politeness. The Oriental takes off his shoes before he enters the temple, the mosque, or the apartment of a man of respectability. This custom was also adopted by the Roman Catholic church in some cases. At the adoration of the cross on Good Friday, the Roman Catholics walk bare-footed; and the ceremony of humiliation, when the pope and all the cardinals approach the cross bare-footed, in the *Capella Sistina*, cannot but make a deep impression on every traveller. Kneeling was in all ages a common posture of adoration, and originates from the feeling of humility in addressing a higher and mightier being. Sitting with the thighs resting on the heels, was an ancient Egyptian attitude in the act of worship. There are many statues represented in this position. Standing with the body inclined forward, the eyes fixed on the ground, the hands probably resting on the knees, was an early eastern attitude of adoration. Dancing, screaming, rolling on the ground, and many similar acts accompany the worship of different savage tribes. Mr. Ward, one of the Baptist missionaries at Serampore, in a work on the history and literature of the Hindoos, has given a very curious and minute account of the modes of adoration, which they call *pōja*. The objects of adoration have been greatly diversified. In all ages, worship has been paid to idols, but many of the worshippers have regarded the image merely as the representative of the Divinity. Protestants often mistake when they impute to Catholics, universally, the worship of external things, as being in themselves objects of adoration, while, in fact, they are regarded by the church merely as visible signs of the invisible Deity. The ancients placed crowns or garlands on the statues of the gods; and the Catholics still offer flowers to their saints and the virgin. It was common to sleep in the ancient temples, with a view of receiving responses from the gods in dreams. The sick, in particular, slept for this purpose in the temple of *Æsculapius*. In the Roman Catholic church adoration is not offered to saints and martyrs, as has been supposed, but their intercession is solicited. The

Phœnicians (the first navigators) adored the winds, a practice adopted by many other nations. The Persians adored the sun and fire. The Greeks and Romans adored fire under the name of Vesta. Pliny mentions the adoration of lightning by gently clapping the hands. The Egyptians adored animals, plants and fishes; the Arabs, stones; the Scythians, swords; the Chinese, the statues of their ancestors. The Hindoos have not only an amazing variety of gods, but they worship human beings, beasts, birds, trees, rivers, fish, books and stones. (See *Ward's View of the History, Literature and Religion of the Hindoos*, and *Bishop Heber's Narrative of a Journey through the Upper Provinces of India, from Calcutta to Bombay, 1824—1825, with Notes upon Ceylon, and an Account of a Journey to Madras and the Southern Provinces, 1826.*) It must be remembered, that all adoration originates from two different sources, either from love and thankfulness, or from fear.

ADRAGANTH, in medicine, *gum dragon*. It distils by incision from the trunk or roots of a plant which grows in the Levant. The gum is of different colors, white, red, gray and black, and is useful in medicine. Skinners use great quantities, and prefer the red to the black. It is the *astragalus tragacanthus* of Linnaeus.

ADRASTEIA; a daughter of Jupiter and Necessity, the servant of eternal Justice, the punisher of all injustice, whom no mortal escapes. A. is generally a mere epithet, given to Nemesis, (q. v.) She is represented sometimes with wings, sometimes with a rudder, and sometimes with a wheel.

ADRASTUS, king of Argos; son of Talan and Eurynomé. In obedience to the oracle which commanded him to give one of his daughters to a lion and the other to a wild boar, he gave Argia to Polynices, who came to him in a lion's skin, and Deiphyle to Tydeus, who was dressed in the skin of a wild boar. He was one of the seven heroes who encamped before Thebes, and the only one who survived the siege. Ten years after this, he made a second expedition against Thebes, accompanied by the sons of his former allies, and took the city, but lost his son in the engagement, and died himself of grief. (See *Thebes*.)

ADRIAN, the African, abbot of St. Peter's, Canterbury, in the 7th century, accompanied Theodore, archbishop of Canterbury, to England. A. was the preceptor of Adhelm, and Bede extols the hap-

py time when the island enjoyed his tuition, and Kent "was the fountain of knowledge to the rest of England."

ADRIAN, or **HADRIAN**, *Publius Ælius*, a Roman emperor, the successor of Trajan, was born at Rome, A. D. 76. His father, Trajan's cousin, died when A. was ten years of age. A. showed very early great talents, and is said to have spoken the Greek language so perfectly in his 15th year, that he was called the young Greek. His memory is said to have been so extraordinary, that he could commit a book to memory by once perusing it, and that he could call all his soldiers by name. These stories may be exaggerated, but they prove the estimation in which his talents were held. He was an orator, poet, grammarian, mathematician, physician, painter, musician and astrologer. The greater development of the sciences in modern times does not admit of distinction in so many branches. His great qualities, however, were stained by great faults, so that he never won the affections of Trajan, who was his guardian. He was indebted for his elevation to the throne to the wife of Trajan, Plotina, who concealed the death of her husband until she had time to forge a testament bearing the name of the late emperor, in which he was made to adopt A. and declare him his successor. Her bribes also had in the mean time prepared the troops to espouse the cause of A. After these preparations had been made, A. sent information of the emperor's death from Antioch to Rome, pretended that the imperial dignity had been forced upon him, promised the senate that he would discharge faithfully the duties of his station, and assured the pretorian guards that they should receive twice the usual present. A. D. 117, he ascended the imperial throne, appeared in Rome, and strove at first to win the favor of the people by the mildness of his administration. It was not long, however, before he manifested a cowardly and suspicious character, together with too great a devotion to pleasure. Among other things, he purchased peace from the Sarmatians and Roxolani, who had attacked Illyria, by the payment of a tribute. From A. D. 120 to 131, he made his famous journey on foot, and with his head uncovered, through all the provinces of his empire. In Egypt, he lost his favorite Antinous (q. v.), whose death he lamented long and bitterly. During his stay of two years in Athens, he established a colony of Roman soldiers on the site of the ruined Jerusalem;

and on the spot where the temple of Solomon had stood, he erected a temple to Jupiter Capitolinus. Upon this, a dreadful insurrection broke out among the Jews, which lasted two years and a half. He embellished Athens with buildings, and finished the temple of the Olympian Jupiter, begun 560 years before. A. died at Bajæ, 138 A. D. in the 63d year of his age, and the 21st of his reign. He had good qualities and great faults. He promoted literature and the arts, did many good things on his journey, established the *edictum perpetuum*, enacted laws against dissipation and the cruelties of the slave trade, prohibited human sacrifices, forbade the indiscriminate bathing of men and women, &c. Antoninus Pius succeeded him. It was with much difficulty that his successor could obtain a decree from the senate, granting him, according to usage, divine honors. A. wrote several books; among others a history of his own life, under the name of Phlegon, one of his freedmen, which is no longer extant. He composed, not long before he breathed his last, the following lines:

Animula, vagula, blandula,
Hospes, comesque corporis,
Quæ nunc abibis in loca
Pallidula, rigida, nudula ?
Nec, ut soles, dabis jocos.

Pope has imitated them.

ADRIAN. There have been six popes of this name. The first, a Roman, ruled from 772 to 795, was a cotemporary and friend of Charlemagne, who, on account of A.'s able defence of his claims to the crown of France, protected him with his army, 774, against Desiderius, king of the Lombards, confirmed the donation of Pepin to the territory of the church, and made further grants himself. The pope was not allowed, however, to enjoy in peace the gifts of Charlemagne till 787, after the termination of the frequent campaigns of this king against the Italian princes, who claimed the territory. By confirming the decrees of the council of Nice, 786, in favor of the worship of images, A. gave offence to Charlemagne, who was opposed to the practice, and procured a repeal of the decree at the council of Frankfurt. The repeal was resisted by A.; but he so carefully and skilfully avoided offending the king, that he remained his friend, and honored him after his death, 795, with an inscription, yet preserved in the Vatican. Though by no means a profound theologian, A. obtained

great influence by the correctness of his conduct, and his decision of character. By a prudent use of this influence, he greatly increased his power.—ADRIAN II, a Roman, was elected pope in 867, at the age of 75 years. He was esteemed for his virtues, and famous on account of his bold opposition to the divorce of Lothaire, king of Lotharingia, from his wife Thietberga. By interfering in the dispute, which arose after the death of Lothaire, between Charles the Bald and the emperor Louis, respecting the right of succession, he made the former his enemy. He had another dispute in France, where bishop Hincmar of Laon had been dismissed against his will; he likewise excommunicated the patriarch Photius of Constantinople, on account of his spiritual jurisdiction over Bulgaria, which diminished the authority of the pope, since the Greek church maintained its independence against him, and made Bulgaria dependent on itself. He died 872, in the midst of his conflicts with this church.—ADRIAN III, a Roman, elected 884, was pope for 1 year and 4 months only. He was opposed to the influence of the emperors on the election of the pope, and determined, if Charles the Fat should die without heir, to give Italy a new king.—ADRIAN IV, an Englishman, originally named *Nicholas Breakspear*, rose, by his great talents, from the situation of a poor monk to the rank of cardinal, and legate in the north, where he established at Drontheim the first Norwegian archbishopric, and a second at Upsal. He was elected pope in 1154, and waged an unsuccessful war against William, king of Sicily, who, at the peace of 1156, claimed the privilege, still existing in the *monarchie Sicilie*, so called, that, in matters relating to the church, nothing should be done by the pope without the consent of the king. The emperor Frederic I, who, before, had held his stirrup, and had been crowned by him at Rome, June 18, 1155, was opposed to this peace with William, his enemy. A. increased his resentment by the haughty language of his letters, and instigated the Lombards against him. Frederic, on the other hand, acted in ecclesiastical matters as if there had been no pope. Before these difficulties came to a close, A. died, Sept. 1, 1159, at Anagni. The permission which he gave to Henry II, king of England, to invade Ireland, on the condition that every family of that island should pay annually a penny to the papal chair, because all islands belong to the

pope, is worthy of remark. On this grant the subsequent popes founded their claims on Ireland.—ADRIAN V, previously called *Ottoboni da Fiesco*, of Genoa, settled, as legate of the pope, the dispute between king Henry III of England and his nobles, in favor of the former; but died soon after his election to the papal chair, 1276.—ADRIAN VI, son of a mechanic of Utrecht, and professor in Louvain, was, in 1507, appointed tutor of the emperor Charles V. When ambassador of the emperor Maximilian, in 1515, he persuaded Ferdinand the Catholic to nominate young Charles his successor to the Spanish throne; after which he became, in 1516, bishop of Tortosa and regent of Spain, and, in 1517, cardinal. The Spaniards were not pleased with his severe and often partial government, and expressed great joy when, at the suggestion of Charles V, he was elected to the papal chair, in 1522. He was not less hated at Rome, on account of his antipathy to classical literature, and his honest endeavors to reform the papal court, to abolish the prevailing luxury, bribery, and other abuses; but his efforts were frustrated by the cardinals, and, if they had been successful, could not have prevented the progress of the reformation already begun in Germany. A. opposed the zeal of Luther with reproaches and threats, and even attempted to excite Erasmus and Zuinglius against him; but his abilities were not equal to the existing emergency. His measures against France also were unsuccessful. Notwithstanding his honest efforts and upright character, he died unlamented, in 1525, after a reign of one year and a half. His reign was, according to his own confession, the most unhappy period of his life. On his tomb, in the church of St. Peter, is the following epitaph:

Adrianus Papa VI hic situs est,
 Qui nihil sibi infelicius
 In vita,
 Quam quod imperaret,
 Duxit.

ADRIANOPLE (in Turkish, *Edrene*), the second capital and residence of the Ottoman rulers, is situated in ancient Thrace (now Rumelia), on the banks of the navigable river Hebrus (now Maritza). On this spot a small town formerly stood, inhabited by the Bessi, a Thracian tribe. The emperor Adrian founded this city on the left bank of the Hebrus, called it after his own name, and made it the capital of the province of mt. Hæmus. From the range of hills on which it is situated,

it commands a beautiful prospect over a large and fertile plain, divided by two ranges of hills, between which the river runs. It was fortified, and resisted, in the 4th century, the violent attack of the victorious Goths, who were, however, ignorant of the mode of conducting a regular siege. To give it the appearance of a Greek origin, the writers of Byzantium called it *Orestea* or *Orestias*. According to their accounts, it is five days' journey distant from Constantinople. In 1360, it was taken by Amurath, the Turkish sultan; and from that time it continued to be the residence of the Turkish emperors for nearly a century, until the conquest of Constantinople. The number of the houses is 16,000, and that of the inhabitants 100,000, among whom there are 30,000 Greeks, under an archbishop. It contains also an imperial palace, 40 mosques, of which that of Selim II and of Amurath II are the most magnificent, 22 bathing establishments, with beautiful aqueducts, important manufactures, and exports, among other articles, oil of roses, which is made in its vicinity, of the best kind.

ADRIAN'S WALL; a celebrated Roman work in the north of England. This work, though called by the Roman historians *mur*, which signifies a wall of stone, was only composed of earth covered with green turf. It was carried from the Solway frith, in as direct a line as possible, to the river Tyne, on the east, at the place where the town of Newcastle now stands; so that it must have been above 60 English and nearly 70 Roman miles in length. It consisted of four parts: 1, the principal *agger*, mound of earth or rampart, on the brink of the ditch; 2, the ditch, on the north side of the rampart; 3, another rampart on the south side of the principal one, about five paces distant from it; 4, a large rampart on the north side of the ditch. For many ages, this work has been in so ruinous a condition, that it is impossible to discover its original dimensions with certainty. But from their appearance, it seems probable that the principal rampart was at least ten or twelve feet high, and the south one not much less; the northern one was considerably lower. The ditch, taken as it passes through a lime-stone quarry near Harlow hill, appears to have been 9 feet deep and 11 feet wide at the top. The north rampart was about twenty feet distant from the ditch.

ADRIATIC SEA (*mare Adriaticum*, *Adri-*

anum), now more commonly called *gulf of Venice*, though in Italian, German and French the old name continues, is an arm of the Mediterranean included by the coasts of Italy, Illyria, Dalmatia, Albania and Epirus, about 200 leagues long and 50 broad, extending from south-east to north-west, lat. 40° to 50° 55' north. It contains about 90,000 sq. miles of surface. Different derivations of the name are given. On the Austrian coast it has a number of small islands, and forms many bays, the most remarkable of which are those of Trieste, Quarnaro and Cattaro. It is called the *gulf of Venice* from the city of this name, which formerly claimed exclusive dominion over this sea, and in those times annually wedded it on Ascension Day. The ceremony was performed by the doge of Venice throwing a ring into the sea with great pomp. The entrance of the gulf is commanded by Corfu, one of the Ionian islands under the British government. The coast of the A. sea is, in many places, very dangerous. The most important ports on the gulf are Venice (since 1829 a free port), Trieste, Ancona, Otranto, &c.

ADULE; ADULIAN MARBLE. Adule, a city in Ethiopia, mentioned by ancient authors as the most important commercial place of the Troglodytes and Ethiopians, in later times the emporium of Axum, seems to be the same with the modern Arkiko. This city, now the residence of the Naib of Massuah, is frequently mentioned on account of an inscription, first copied in the *Topographia Christiana*, a work partly theological, partly geographical, written by Cosmas Indicopleustes, in the 6th century, under the reign of the emperor Justin. The inscription, engraved on marble, is contained in part on a throne, the remainder on a stone separated from it, and there are many inconsistencies in the several fragments, which have induced some scholars to declare the inscription spurious. Besides the genealogy of Ptolemy Evergetes, it contains on a second part, which Salt supposes to be of Axumitic, that is, of Ethiopic or Abyssinian origin, the catalogue of nations whom some king boasts to have subdued. Buttmann (in *Wolf's Museum der Alterthumskunde*, vol. 2, p. 105) has removed the difficulties arising from the date on the marble, which is the 27th year of the reign of a king, whose name is unknown, probably not Ptolemy Evergetes. Several things, however, remain to be explained, and require a more accurate knowledge than we have at pres-

ent of the country where the inscription was found.

ADULTERY. Mankind, in almost all ages, and in all civilized countries, have regarded the violation of the marriage-bed with abhorrence. It has been punished in various ways and with different degrees of severity, according to the general manners and morals of the country; sometimes with extreme and even cruel rigor; in other instances, with capricious and ridiculous penalties. By the Jewish law, it was punished with death. Strabo says the same was the case in Arabia Felix. Among the ancient Egyptians, it was not common, but when it did occur, a thousand lashes were inflicted on the man, and the woman was deprived of her nose. In Greece, the laws against it were severe. The rich were sometimes allowed to redeem themselves by paying a fine; in which case, the woman's father returned the dower which he had received from the husband. Some suppose it was refunded by the adulterer. A frequent punishment there, was putting out the eyes. According to Homer, adulterers were stoned to death. By the laws of Draco and Solon, adulterers, when caught in the act, were at the mercy of the injured party. Adulteresses were prohibited, in Greece, from appearing in fine garments and entering the temples. Some suppose that this offence was made capital by a law of Romulus, and again by the twelve tables; others, that it was first made capital by Augustus; and others, not till the reign of Constantine. The fact is, that the punishment was left to the discretion of the husband and parents of the adulteress. The most usual mode of taking revenge was by mutilating, castrating, or cutting off the ears or nose. The punishment assigned by the *lex Julia de adulteris*, instituted by Augustus, was banishment or a heavy fine. It was decreed by Antoninus, that, to sustain a charge of adultery against a wife, the husband who brought it must be innocent himself. Under Macrinus, adulterers were burned at a stake. Under Constantius and Constans, they were burned or sewed in sacks and thrown into the sea. But the punishment was mitigated under Leo and Marcian to perpetual banishment, or cutting off the nose; and under Justinian the wife was only to be scourged, lose her dower, and be shut up in a monastery; at the expiration of two years, the husband might take her again; if he refused, she was shaven, and made a nun for life. Theodosius instituted the

shocking practice of public constupration, which, however, he soon abolished. In Crete, adulterers were covered with wool, as an emblem of their effeminacy, and carried in that dress to the magistrate's house, where a fine was imposed on them, and they were deprived of all their privileges and their share in public business. The punishment in use among the Mingrelians is the forfeiture of a hog, which is usually eaten very amicably by the woman, the gallant and the cuckold. In some parts of India, it is said, that any woman may prostitute herself for an elephant, and it is reputed no small glory to have been rated so high. Adultery is stated to be extremely frequent at Ceylon, although punishable with death. Among the Japanese and some other nations, adultery is punishable only in the woman. Among the Abyssinians, the crime of the husband is punished on the innocent wife. On the contrary, in the Marian islands, the woman is not punishable, but the man is, and the wife and her relations waste his lands, burn him out of the house, &c. Among the Chinese, adultery is not capital; fond parents will even make a contract with the future husbands of their daughters, to allow them the indulgence of a gallant. In Portugal, an adulteress is condemned to the flames, but the punishment is seldom executed. By the ancient laws of France, this crime was punishable with death. In Spain, the crime was punished by the deprivation of the instrument. In Poland, previously to the establishment of Christianity, the criminal was carried to the market-place, and there fastened by the testicles with a nail; a razor was laid within his reach, and he had the option to execute justice on himself, or remain where he was and die. The Saxons consigned the adulteress to the flames, and over her ashes erected a gibbet, on which her paramour was hanged. King Edmund the Saxon ordered adultery to be punished in the same manner as homicide, and Canute the Dane ordered that the offender should be banished, and the woman have her ears and nose cut off. In the time of Henry I, it was punished with the loss of the eyes and the genitals. Adultery is, in England, considered a spiritual offence, cognizable by the spiritual courts, where it is punished by fine and penance. The common law allows the party aggrieved only an action and damages. The Mahomedan code pronounces adultery a capital offence. It is one of the three crimes which the prophet

directs to be expiated by the blood of a Mussulman. In France, before the revolution, an adulteress was usually condemned to a convent, where the husband could visit her during two years, and take her back if he saw fit. If he did not choose to receive her again by the expiration of this time, her hair was shaven, she took the habit of the convent, and remained there for life. Where the parties were poor, the wife might be shut up in a hospital instead of a convent. The *Code Napoléon* does not allow the husband to proceed against his wife for adultery, in case he has been condemned for the same offence. The wife can bring an action against the husband only in case he has introduced his paramour into the house where she resides. An adulteress can be imprisoned from three months to two years. The husband can prevent the execution of the sentence, if he sees fit to take her back. Her partner in guilt is liable to the same punishment. In the United States, the punishment of adultery has varied materially at different times. In the state of Massachusetts, an adulterer or adulteress may be set on the gallows for one hour, be publicly whipped, be imprisoned or fined. All or any of these punishments may be inflicted, according to the degree of the offence. Corporal punishment and exposure, however, are in that state always commuted into imprisonment and labor. Moreover, adultery is very seldom punished criminally in the United States.

ADVENT (from the Latin *adventus*, i. e. *adventus Redemptoris*) signifies the *coming of our Savior*. The name is applied to the holy season which occupies the 4 or 6 weeks preceding Christmas. The Roman Catholics spend this season in fasting, humiliation and prayer, as if preparing for the reception of the Savior of the world. This holy season is first mentioned by Maximus Laurinensis, a divine, in one of his homilies, written in the middle of the 5th century, but is supposed to have been instituted by St. Peter. No nuptials could be celebrated in Advent, since the council held at Lerida, in the 6th century, in order that Christians might more frequently partake in the Lord's supper.

ADVENTURE, bill of; in commerce, a writing signed by a merchant, to testify that the goods shipped on board a certain vessel belong to another person, who is to take the hazard, the subscriber signing only to oblige himself to account to him for the produce.

ADVENTURE ISLAND; a small island in the S. Pacific ocean; lon. 144° 18' W.; lat. 17° 5' S. There is also an *Adventure Bay*, on the S. E. coast of New Holland; lon. 147° 29' E.; lat. 43° 21' S.

ADVENTURERS, the society of; an ancient company of merchants, erected for the discovery of unknown regions, opening new channels of trade, &c. It originated in Burgundy, and was established by John, duke of Brabant, in 1248, for the encouragement of English and other merchants at Antwerp. It was afterwards confirmed in England by Edward III and IV, Richard III, Henry IV, V, VI and VII; and by patent of the last-mentioned monarch, in 1505, they received the title *merchant adventurers*. The influence of the English merchant adventurers at Antwerp was, in 1550, so great, that they were able to resist successfully the establishment of the inquisition in that city.

ADVOCATE OF THE CROWN; **STATE ADVOCATE**. The institution of crown advocates or public attorneys (*ministère public*), which is found in almost all modern systems of government, has been no where so well regulated as in France. The separation of the office of judge from every other has been there completed, which is not only indispensable on principles of general constitutional law, but also desirable, that the people may see in the judiciary judges only, and not men who, by virtue of their office, are obliged to take care of the interests of the state and the government, and who, when these interests are in question, must be necessarily, at the same time, both party and judge. It is not sufficient that the judge be personally conscious of impartiality; he should be so situated, that no particular effort should be required to attain it. Those who appear before the judge should have no occasion to doubt it. It must be considered as a particular defect in criminal proceedings, if the judge is obliged, by his office, to occupy the place of accuser, as he must necessarily appear to be the adversary of the accused persons. To avoid these inconveniences, the office of public advocate was established in France in early times, and constituted an essential part of the establishment for the administration of justice. It has given to the whole class of advocates higher honor and consideration. This institution originated in those times when the modern constitution of the courts began to develop itself, by means of permanent sessions of the parliaments, and through the agency of per-

manent members of these bodies, who were versed in the law. This period was about the beginning of the 14th century; for, although the kings of the Merovingian and Carolingian dynasties had their advocates (*procuratores* or *actores regis*), these were only officers appointed for the collection of the revenue; and the office of the crown advocate did not acquire greater authority until the highest court of law of the hereditary possessions of the line of Capet (the parliament of Paris) had attained a permanent session in that capital. As early as 1356, the *procureur général* appears making a complaint against the city of Tournay, which had maintained an asylum for the protection of notorious murderers, and proposed the abolition of a usage so contrary to the principles of justice. Every thing which related to public order, the rights of the crown, and the general welfare, was placed under the cognizance of these officers, who, as the president Henrion de Pansey says (*De l'autorité judiciaire en France*, ch. 12, p. 185), have rendered incalculable services to the crown and to the people. In every supreme court of the realm (the parliaments), and in the *cours souveraines*, which were substantially equal to them, and in the *chambres des comptes*, the *cours des aides*, &c. a *procureur général* was appointed, who was the soul of the institution, the representative of the king and state in the court. In his name were made all motions in the court; although the first *avocat général* took precedence of him in rank, and though, in some cases, he was bound by the majority of voices, and the *avocats généraux* who stood next to him had the exclusive privilege of arguing orally at the sessions of the court, wherein they were entirely independent of the *procureur général*. In the same rank with the *procureur général* stood one or more *avocats généraux*, and under them were certain substitutes. The business was not apportioned among them every where in the same manner, but was arranged in each tribunal by peculiar regulations; but, as a common rule, the same distinction existed between them which generally prevailed in France between the orders of *avocats* and *procureurs*, assigning to the latter that part in the management of a cause which was performed in writing, and to the former, the oral argument. Under the crown advocates belonging to the highest courts were the *procureurs du roi*, and there was no court in France, in which such an officer was not appointed, excepting

only the *conseil du roi*, and the commercial courts. Even in the feudal courts, the lord had a similar officer under the name of *procureur fiscal*. The sphere of action of the state advocates, as is evident from the nature of the institution, was very extensive and important. 1. It comprehended every thing that related to the royal domains and the public property; and this part of their duties, which gave origin to the whole institution, furnishes now, in other countries, almost the only business of these advocates. The *fiscal*, in most of the German states, has been confined almost entirely to the representation and defence of the public property and the state treasury in the courts; of the other branch of the official duties of the French crown advocate, viz. the prosecution of crimes, only such portion has been assigned to the German *fiscal* as consists in the support and defence of the legal prerogative and fiscal rights, and in the collection of the fiscal fines. 2. The crown advocate in France, in all criminal proceedings, occupied the station of public prosecutor, and appeared as a party against the accused. To him was assigned the duty of instituting the proceedings in criminal cases, of procuring evidence, of replying to the defence, and finally of introducing the motions for punishment. By this means, the office of judge was, in most respects, established on correct principles, and relieved from the double and often inconsistent duty of taking care as well of the accusation as of the defence. In France, the judges have only to decide correctly on the motions of the parties. 3. In the old constitution of France, as well as in Germany, the departments of the police and the judiciary were in the same hands. In the exercise of power by the courts, as heads of the police, the crown advocates bore an important part. No police ordinance could be issued before the *procureur général* had been heard thereupon; in fact, they were usually proposed by him. 4. The ordinances of the king, both those of a public and those of a private character, including pardons, promotions, &c., were published and carried into effect by entry on the records of the courts. Such entries, which, it is well known, often met with opposition, could be made only on the motion of the crown advocate. 5. It was the duty of this officer to watch over the execution of the laws, particularly in the courts themselves. Wherever the state advocate observed any violation or neglect of legal rules, he took measures for

the correction of the abuse. 6. It was his duty, moreover, to preserve good order in the court to which he was attached. He had no authority, indeed, to correct irregularities himself, but could make a motion to the court for this purpose, who were bound to deliberate thereupon. He could also make report of the fact to the higher authorities. To carry into effect this part of his duty, it was provided that, every half year, on the first Wednesday after the vacation of the courts, a session should be held with closed doors (originally on the first Wednesday of every month), at which the *procureur général* should report all the delinquencies which he had observed in the public and private conduct of the judges, advocates and inferior *procureurs*. These reports, as they were made on Wednesday, were called *Mercurials*, and, to give them more weight, they were sent to the chancellor of France. The *avocat général* was also accustomed, at the first session of the court after the vacation, to deliver a discourse on some important point of the official duties of the judge or advocate, by which many of them, e. g. D'Aguesseau, have greatly distinguished themselves. 7. To the duties of the state advocates also belonged the support of the authority of the court to which they were attached; and, 8. The representation of all corporations and persons or things placed under the especial guardianship of the state, viz. the church, charitable institutions, ecclesiastical societies, congregations, minors, insane persons, notorious spendthrifts and absent persons. Whenever the interest of such persons or corporations came in question, it was necessary that the state advocate should be consulted and heard. Officers with such powers could not be treated as subordinate to the courts. In point of fact, the *procureur général* stood in the same rank with the president of the courts; and as his office, like the others connected with the administration of justice, was venal, extravagant sums were sometimes paid for it. The celebrated minister of finance under Louis XIV, Nicholas Fouquet, sold his office of first *avocat général* in the parliament of Paris, for 1,400,000 livres. The *procureurs généraux* and *avocats généraux* had also the same official dresses as the presidents; these were long, black, and, on solemn occasions, scarlet robes, square caps, &c. The revolution has made many changes in this institution. Its circle of official duties has been narrowed, but, on the other hand, it has gained in unity, connexion

and solidity. These officers were at first called *commissaries of the king*, afterwards, of the *government*. Under the imperial government, particularly by the decrees of April 20 and July 6, 1810, the institution was put nearly on its old footing, and has remained so ever since. Attached to every court of appeal (*cour royale*) is a *procureur général*; under him is an *avocat général* for the civil department of the court, and also one for that branch of the court which has appellate jurisdiction of cases tried before the *police correctionnelle*, which has cognizance of all minor offences, simple thefts, trespasses, and, lately, offences of the press. There are likewise two substitutes or deputies to supply the place of these officers. All these stand immediately under the minister of justice, receive commands from him, and give regular information of the administration of justice within their precincts. It is incumbent on them to send to the minister of justice, semi-annually, a list of processes, especially of *delayed causes*, that is, such as have been waiting for oral discussion longer than three months. Under them are the *procureurs criminels* in the courts of assize, and the *procureurs du roi* in the courts of the first instance (the provincial or district courts), and all the officers of the judicial police, so called, viz. the commissioners of police, the mayors of cities, justices of the peace, officers of the *gendarmerie*, field and forest rangers and their deputies. The sale of offices is abolished; all the crown advocates are appointed by the king, but not for life, like the judges; on the contrary, they are removable at pleasure. Their former official duties are lessened only in so far as the province of the courts has become more confined. The state advocates still take care that the laws are correctly administered, and act as representatives of the public interests. They are the organs of the executive department of government in the courts, and are required to attend to the execution of judgments in which the state is interested. As a part of their general duty of enforcing the strict observance of the laws in the courts, it is also incumbent on them to oppose those judgments in which the parties acquiesce, but which contain any contravention or erroneous exposition of the laws, lest the public should be thereby injured. These decisions, indeed, are binding on the parties, but a more strict adherence to the laws is enjoined on the courts for the future. One of the most important duties of the state advocates is, the institution

of the trials for offences before the police courts and the courts of assize, which they are bound to attend to in their capacity of public prosecutors. All reports of crimes committed are to be made to the *procureur criminel*, and by him to that member of the district court, who is appointed to conduct the preliminary examinations, the *juge d'instruction*. The *procureur criminel* searches out the evidence, summons the witnesses, and, when the preliminary examination is concluded, makes the necessary motions in court, either for the acquittal of the accused, or for the institution of further proceedings, varying, of course, according to the nature of the offence, which may be a matter cognizable by the ordinary police magistrates, or falling within the jurisdiction of the *police correctionnelle*, or belonging to the courts of assize as a crime in the strict sense of the word. In all these cases, an oral discussion takes place, but only criminal causes, technically so called, before the courts of assize, are tried by a jury. The jurisdiction of the *police correctionnelle* is limited to offences, the punishment of which does not exceed 5 years' imprisonment. At the opening of criminal causes, the *procureur général* is required to ask of the court, in the first instance, a formal bill of complaint (*mise en accusation*), which formerly was found by the jury *d'accusation* (corresponding to the English grand jury), but now originates from a branch of the court of appeals, and is very similar to the report of a special inquisition in the German courts. After this, the *procureur général* draws up the indictment, which serves as a basis for the subsequent proceedings, summons the witnesses, and assists in empannelling the jury, as he has, like the accused, a right of challenging. He sees that the proceedings are rightly conducted, and is allowed to propose questions to the witnesses. After the examination of the witnesses is concluded, he makes the motions for condemnation (*conclusions*), grounded on the evidence produced in the course of the trial, and subsequently the accused is heard in his own defence. The court may decree a severer punishment than is moved for by the officers of government; and, on the other hand, the state advocate has the right to appeal from too mild a sentence (*appel à minima*), though he is bound to acquiesce in an acquittal by the jury. Finally, the crown advocates attend also to the execution of the sentence, and thus every thing is committed to them which may

be considered as flowing from the executive department of government. In regard to the great excellence of this whole institution, there prevails but one voice among the French lawyers and statesmen. It allows the judges to lay aside all considerations except those of strict justice, as it relieves them from the duty of taking care of the interests of the government. By means of the subordination in which the state *procureurs* in the courts of the districts (*arrondissements*) and the *procureurs criminels* stand to the office of state advocate in the courts of appeals, and the *procureurs généraux* in the last to the minister of justice, that unity of influence is maintained, which the government should exercise over the courts and the administration of justice. When every thing goes on properly, this influence will not be allowed to overstep its natural and beneficial limits, and to interrupt or disturb the right of the judges to decide according to law. It cannot, indeed, be denied, that the great power confided to the state advocates is liable to abuse. This is not the place to pronounce judgment on the complaints which have been brought against the *procureurs généraux*, e. g. on the occasion of the criminal trial of the merchant Fonk at Cologne; but the existence of these complaints proves what it is in the power of a state advocate to do, if he chooses to misuse his power for purposes of oppression and the gratification of selfish passions. In France, of late, the state advocates are charged with being influenced too much by political differences of opinion. Some of them, in particular, have drawn upon themselves thereby very severe animadversions. It is said that, in the trials of general Berton, of Caron and Roger, at Colmar, and others, on account of political offences, they sought to implicate persons against whom nothing could be proved but a justifiable opposition to the ministry, in accordance with the charter and the nature of a representative government. It is well known how severely Benjamin Constant expressed himself on this point, with regard to the *procureur général* of Saumur. Certainly the dependence of the crown advocates on the government has a tendency to give a certain bias to their official conduct. But this bias is not very pernicious, because it is a notorious and natural consequence of their official situation, and the judge is required, as well as empowered, to resist it.—England has also her superior state advocates, the attorney general and solicitor general; but, in con-

formity with the English judiciary system, their sphere of action is much more limited, and is not to be compared with that of the French *ministère public*. In criminal causes, the prosecution is conducted, indeed, in the name and by the advocates of the crown; but a great deal depends on the injured party, and the police magistrates, that is, the justices of the peace. The former have it in their power, by avoiding to appear at the trial (although liable to punishment for so doing), to defeat the whole proceeding; and, in every session of the courts, a large number of accused persons are set free, because, after a public summons or proclamation in court, no person appears against them. In Scotland, the king's advocate, or lord advocate, is an officer of great power and dignity, and is empowered to commence prosecutions without complaint presented by an injured party.—So, in other countries, there exist officers under the names of *fiscal*, *advocatus fisci*, *advocatus patriæ*, &c. But these have not the authority which is indispensable to render their offices as efficient as that of the French advocate.—Frederic II of Prussia had the office of the French advocate in mind when he conferred greater powers on the office of fiscal, and appointed a superior fiscal in each of the superior courts, to whom the provincial fiscals in the inferior courts were subordinate; at the head of these stood the fiscal general at Berlin. But the institution was deficient in strength. It has not acquired the efficiency of the French *ministère public*, and appears to have fallen almost entirely into disuse.—But, even in France, it is capable of an important, and, we may well say, a necessary extension of authority, if the constitutional responsibility of the higher offices of state is ever to be seriously insisted on. It is necessary, and this remark may be applied to all representative governments, that the state advocate should be required to watch over the execution of the laws in the highest offices of government; and therefore a superior state advocate should be appointed, to whom (as to the Prussian fiscal-general) the ministers should be required to render an account of their administration, and who, when any violation of the law came to his knowledge, should be bound to make a report thereof to the representatives of the people. There should be a still further extension of the institution, by placing in subordination to the crown advocate, who receives the orders of the ministry, a state

or national advocate (in a narrow sense), who should be considered as the officer of the people, and should be obliged to come forward whenever the interest of the treasury came into collision with that of wards, absentees, and the like. Then this institution would answer the high purposes for which it was designed. (See *Das Institut der Staatsanwaltschaft*, by Müller, counsellor of state, Leipsic, 1825.)—In the United States, the attorney general is an officer under the federal constitution, corresponding substantially to the English law officer of that name. His duty, as defined by the law of congress, is, to prosecute and conduct all suits in the supreme court of the union, in which the United States shall be concerned, and to give his advice and opinion upon questions of law, when required by the president of the United States, or when requested by the officers at the head of any of the departments, touching any matters that may concern their departments. He is also required to examine all letters patent for useful inventions, and to certify to the secretary of state whether they are conformable to the law on that subject, previously to the public seal being affixed to them. The attorney general of the United States is also a member of the president's cabinet council. In addition to this law officer, the government of the United States has in each of the states (which, in judicial proceedings, are styled *districts*) a *district attorney*, as he is called, whose duty it is, within his particular state, to prosecute, on behalf of the United States, all delinquents for crimes and offences cognizable under the authority of the United States' laws, and all civil actions in which the United States shall be concerned, except those which come before the supreme court, in the district in which that court shall be holden. Besides these law officers of the general government of the United States, each of the states of the union has its attorney general and subordinate public prosecutors, or attorneys, for its territorial subdivisions or districts; and their duties are, to prosecute and defend in all causes, criminal and civil, arising under the local laws of their respective states, and in which their own state is concerned.

ADVOCATES. This profession has played a conspicuous part in almost every civilized country. Among the Romans, the greatest statesmen and orators belonged to this class, devoting themselves especially to the defence of criminal causes of importance. Those of less consequence

and of a civil character were committed to *procurators*. The advocates of England and France are often men of high rank, enjoying an ample income and the prospect of attaining to the highest dignities of the state. Men of the best talents, therefore, are found in their ranks. In Germany and some of the other countries of Europe, the advocates occupy a comparatively subordinate station in the courts. The profession is there considered only as a preparatory step to public employments, and these frequently of an humble description. This is the cause of the inferiority of the German lawyers in general to those of England and France; and the whole administration of justice there suffers from the same cause. There are exceptions, however, in some of the German states, particularly in Prussia. In the French revolution, the lawyers acted the most important part in public affairs. *Advocati ecclesiarum*, superintendents of the property of the church, divided, according to their several offices, into *defensores*, *causidici*, *actores*, *pastores laici*, &c., were first appointed under the consulship of Silius. The pope, at the same time, issued orders, that the bishops, abbots and churches should have good advocates. These offices were first intrusted to canons, but afterwards were held even by monarchs; e. g. the German emperor, the king of France, &c. became *advocati* of the Roman church. The advocates set over single churches administered justice in secular affairs in the name of the bishops and the abbots, and had jurisdiction over their whole dioceses. In case of necessity, they defended the property of the clergy by force of arms. In the courts of justice, they pleaded the causes of the churches with which they were connected. They superintended the collection of the tithes and the other revenues of the church, and enjoyed, on the part of the convents, many benefices and considerable revenues. After a time, these advocates and their assistants becoming a burden to the clergy and the people under their charge, who began to suffer severely from their avarice, the churches attempted to get rid of them. Urban III labored to deliver the church from these oppressors, but was astonished to find, A. D. 1186, the German prelates, in connexion with the emperor Frederic I, opposed to it. Under the emperor Frederic II, most of the German churches succeeded, however, in abolishing these offices by the grant of large sums of money

and of various immunities.—In the U. States, the profession of the law possesses an extensive influence upon society. It embraces, as it does in England, various classes of lawyers, such as *proctors*, *conveyancers*, *solicitors*, *attorneys*, and lastly, and above all, *counsellors*, or *advocates*. In the U. States, the different branches of the profession are often carried on by the same person, though this practice is not universal, especially in large cities. The higher ranks of lawyers in the U. States enjoy great public and private confidence. Many of them are selected for the first public employments in the state, e. g. for the presidency, for the office of senators and representatives in the national and state legislatures, for governors, for secretaries of the great departments, and for foreign embassies. From this class of men are also taken, almost as a matter of course, the judges of the various courts in the union. The constitutions and laws of the several states entitle every person, in civil as well as criminal cases, to the assistance of counsel, and generally two are admitted on each side. All trials are public, and forensic eloquence is eagerly heard. The profession of the law is very numerous in the U. States, on account both of its emoluments, and its free access to public favor and patronage. There is no difficulty in gaining admission to the courts, as an advocate, after three or four years of preparatory studies; and, after admission, success is generally in proportion to talents and industry, and devotion to juridical studies. Of the seven presidents of the U. States, six were bred to the law.

ADVOCATE'S LIBRARY. In 1660, the faculty of advocates in Edinburgh founded a library upon an extensive plan, suggested by sir George M'Kenzie, of Rosehaugh, advocate to Charles II and James II, who enriched it with many valuable books. It has been daily increasing since that time. It contains, besides law-books, works on all subjects, many original manuscripts, and a great variety of coins and medals.

ADVOWSON (from *advoco*); in English law, a right of presentation to a vacant benefice, or, in other words, a right of nominating a person to officiate in a vacant church. The name is derived from *advocatio*, because the right was first obtained by such as were founders, benefactors, or strenuous defenders (*advocates*) of the church. Those who have this right are styled *patrons*. Advowsons are of three kinds—*presentative*, *collative* and *donative*; *presentative*, when the patron

presents his clerk to the bishop of the diocese to be instituted; *collative*, when the bishop is the patron, and institutes or *collates* his clerk by a single act; *donative*, when a church is founded by the king, and assigned to the patron without being subject to the ordinary, so that the patron confers the benefice on his clerk without presentation, institution or induction.

ADY; the palm-tree of the island of St. Thomas. Its juice supplies the place of wine among the Indians. The fruit, called *abanga*, is of the shape and size of a lemon, and is eaten roasted. An oil, prepared from this fruit, answers the purpose of butter.

ADYTUM (from *α*, not, and *δύνω*, to enter); the most retired and sacred place in the ancient temples, into which priests only were allowed to enter. It corresponded to the Jewish holy of holies (*sanctum sanctorum*).

ÆACUS; son of Jupiter and the nymph Ægina, daughter of the river god Asopus. He acquired the government of the island called after his mother, and became, by his uprightness, a favorite with the gods. In compliance with his prayers, his father peopled anew the island, which had been depopulated by the plague. The new inhabitants sprung from ants, and were termed, on that account, *Myrmidons*. Greece, too, was delivered, at his entreaty, from a great drought and famine. The name of his wife was Endeis, and Peleus and Telamon were his children. **Æ.**, on account of his love of justice, was joined with Minos and Rhadamanthus in the office of judging the dead. His particular duty was the distribution of rewards and punishments. He is represented as seated upon a tribunal, bearing a crown and sceptre; as a distinguishing mark, he carries the key of the infernal world, given to him by Pluto.

ÆDILES; Roman magistrates of secondary rank, who had the supervision of public spectacles and public edifices, and decided questions relating to the erection of buildings, and to the police of the market. At first, there were but two, chosen from the common people (*ædiles plebei*). At the end of the 4th century from the foundation of Rome, two more were added from among the patricians, to whom an ivory chair (*sella curulis*) was allowed, and who were thence called *ædiles curules*. Julius Cæsar added the third class (*ædiles Cereales*), to whose care the public granaries were intrusted.

ÆGEON; in ancient mythology, a huge giant, the son of Titan and Terra, who was fabled to have had 100 hands, with which he threw 100 rocks at once at Jupiter, who, when he had overcome him, bound him with 100 chains.

ÆGEAN SEA; the ancient name of the modern Archipelago (q. v.; see also *Ægeus*).

ÆGEUS; king of Athens and father of Theseus, by Æthra, daughter of Pitheus, king of Troezen. He caused him to be secretly educated at Troezen, to deceive the sons of Pallas (Pallantides), who expected to succeed him, on the supposition that he was childless. In order that he might recognise his son, he concealed a sword, and some other articles, under a stone, on his departure from Troezen, and left orders that Theseus should bring them to Athens when he had reached a certain age. As soon as this young hero became acquainted with his birth, he hastened to Athens, where he was at first repulsed, and in danger of his life; but his father finally acknowledged him, and declared him successor to his throne. Under the erroneous idea that Theseus had been devoured by the Minotaur, Æ. plunged into the sea, from which circumstance the Archipelago, between Greece and Asia, as far as the Hellespont, received the name of the *Ægean sea*. (See *Theseus*.)

ÆGINA, now **ENGIA**, or **EGINA**; a Grecian island in the Saronic gulf, about 30 miles in circumference. In ancient times, it constituted an independent state, and was rich and flourishing by reason of its commerce. The Greeks had a common temple in it, dedicated to Jupiter. The capital of this island was called also *Ægina*.

ÆGINETAN STYLE AND MONUMENTS OF ART. An association of English and German artists and lovers of the arts was formed in 1811, chiefly with a view of obtaining an architectural survey of the temple of Jupiter Panhellenius, at Ægina, which is one of the most beautiful remains of the Doric architecture. A sketch of this temple may be found in the *English Journal of Science*, and in *Isis*, a periodical edited by Oken, in Germany. This undertaking was amply rewarded by a fine collection of valuable sculpture, which once adorned the eastern and western fronts of that noble edifice. It was purchased by the king of Bavaria in 1812, and the deficient parts restored by Thorwaldson. Every member of the association received a cast of

it carefully executed in plaster of Paris. These works are valuable as faithful imitations of nature, and for the light which they shed over one of the darkest periods in the history of art. They show that the Æginetan style of art was independent of the Attic. Pausanias calls Smilis the Dædalus of Ægina, assures us that he was the contemporary of Dædalus, and ascribes therefore to the Æginetan style equal antiquity and independence with the Attic. The language and manners of Ægina were Doric; and its sculpture has a Doric character, as distinct from the Attic (which was originally Ionic) as Doric poetry and architecture. The characteristic peculiarity and aim of the Æginetan style is the faithful and exact imitation of nature, carried even to deception. Attic art was a daughter of the Ægyptian, and a striving after the ideal is perceptible in both. To gain a clear idea of primitive art, we must distinguish between the Ægyptian, ancient Attic, Æginetan and Etrurian styles. Rudeness, stiffness and meagerness belong to the first attempts in every art. In other respects, they differ from one another, although, at a later period, they exercise a mutual influence. The perfection of art in Phidias has hitherto appeared almost a miracle; but we now comprehend how the Æginetan school, imitating nature with almost perfect exactness, pointed out the way to the ancient Attic, teaching it to rise from the abstract to the living, from the conventional to the natural. Thus we find the long-desired link of connexion between the ancient severe and beautiful styles. Since the creations of Phidias, the traces of the proper Æginetan style have disappeared. There was subsequently, therefore, only one perfect style of art, which spread over all Greece; and *Æginetan* became the name for primitive sculpture. Smilis was the father and founder of the Æginetan style of art; next to him came Callon, who lived between the 60th and 70th Olympiads (540—500 B. C.) About the time of Phidias, there lived the following masters, famous in this style: Anaxagoras, who made the Jupiter which was placed in Olympia at the common expense of all the Greeks, who fought victoriously at Platea, B. C. 379; Simon, the maker of the consecrated offering of a certain Phormis at Olympia; and Glaucias and Onatas, who flourished in the 78th Olympiad. The Æginetan figures now exhibited at Munich are 17. They may be divided into 4 classes: 1. upright,

clothed, and female; 2. advancing or fighting combatants; 3. kneeling, or archers; 4. lying, or wounded. The largest of these figures is Minerva. She is a little above the human size; all the others are rather below this measure. If we consider the style of these works, there prevails in every part of the bodies, the head excepted, a minute imitation of nature, without the least traces of the ideal. Still the imitation is neither poor nor offensive to the rules of art, but a good copy of beautiful nature, with the most perfect knowledge of the bones and muscles. With respect to proportion, these figures are slender, rather small at the hips, and the legs remarkably long. There is much life in the attitudes, though they are not altogether free from a certain stiffness, such as may be observed in the paintings of Giotto, Masaccio, Perugino, &c. The heads seem to belong to an earlier epoch of art; the eyes project, and are lengthened somewhat in the Chinese fashion; the mouth has prominent lips, with well marked edges; the corners in some are turned up; the nose is rather small; the ears finished with the greatest care; the chin is full, and generally too large. They all look alike, and exhibit not the slightest expression of passion; between conquerors and conquered, gods and men, there is not the least difference. The appearance of the hair is not natural, but stiff and conventional. The arms are rather short; the hands natural to deception; not a wrinkle of the skin is forgotten. The legs are well shaped; the knees masterly; the feet elegant; and the toes, which are rather too long, run out parallel. The drapery is close to the body, with folds artificially arranged. Though the style is hard, the execution is tasteful and elaborate. They were apparently made at the same time, but not by the same artist. No one of them has any support, and they are equally finished on all sides. The number of figures originally amounted to 30 at least. They were symmetrically arranged on both fronts of the temple. The Minerva stood in the middle, the standing warriors next, then the archers, and the lying figures last. The temple was not intentionally destroyed, but was probably thrown down by an earthquake. Since Æacus erected this temple to Jupiter Panhellenius, it is probable that the figures represent the battles of the Æacidae, under the protection of Minerva. The two contests in which the Æacidae distinguished themselves most gloriously

were the Trojan war and the naval battle of Salamis: in the latter, the images of the Æacidae of Homer, Ajax and Telamon, were displayed, and regarded as supernatural protectors. According to another opinion, the group of the eastern front represented the contest around the body of Laomedon, king of Troy; and the one on the western, that around the body of Patroclus. The figures should probably be assigned to a period between the 60th and 80th Olympiads. Pindar calls Ægina the "well-fortified seat of the Æacidae," probably referring to these images, for no one of the sons of Æacus then remained in the country. The marble of which they are wrought is Parian, of the kind usually called *Grechetto*. The colors perceptible here and there on the figures are vermilion and azure. All the decorations and foliage of the temple, which are generally carved, were painted. The niches of the fronts in which these figures stood were azure, the partitions red, the foliage green and yellow, and even the marble tiles were painted with a kind of flower. We cannot call this system of painting barbarous; we find it even on the Parthenon. Winckelmann was the first who conjectured the existence of an ancient school of art in Ægina, from the accounts of Pausanias. (See *Wagner's Bericht über die Æginetische Bildwerke herausgegeben, und mit kunstgeschichtlichen Anmerkungen begleitet von Schelling, 1817; Wagner's Report on the Æginetan Remains of Art, &c.*) Subsequently, K. Otf. Müller, in his learned and acute work, *Ægineticorum Liber*, Leipsic, 1820, attempted to determine their relation to the other monuments still extant; and Thiersch to investigate their mythological signification. Against the idea of a peculiar Æginetan style of art, deduced from these marbles, Henry Meyer wrote in *Göthe's Kunst und Alterthum*, 3 Bd. 1. Heft., and opposed the derivation of Grecian sculpture from the Egyptian as strenuously as Winckelmann advocated it.

ÆGINHARD. (See *Eginhard*.)

ÆGIS; the shield of Jupiter, who is called by Homer the *Ægis-bearer*. It derives its name from the she-goat Ægis, which suckled the god in Crete, and with the skin of which the shield was covered. Also the shield of Pallas or Minerva, in the middle of which was the head of Medusa. Sometimes the cuirass of Medusa is thus called. In a figurative sense, Æ. denotes protection.

ÆGISTHUS. (See *Agamemnon*.)

ÆLFRIC; archbishop of Canterbury in the 10th century. He composed a Latin Saxon vocabulary, which was printed by Somner, under the title of a *Glossary*, Oxon. 1659. **Æ.** translated also most of the historical books of the Old Testament, and canons for the regulation of the clergy, which are inserted in Spelman's *Councils*. He frequently assisted his country in a spirited resistance of the Danish invaders, and died highly venerated, Nov. 1005.

ÆLIANUS Claudius; a Greek author who lived at Præneste, about A. D. 221. He was a learned sophist, and has left two works, compiled in a pretty good style—a collection of stories and anecdotes, and a natural history of animals. Of the first work, one of the best critical editions was published by Gronovius, at Leyden, 1731, 2 vols. 4to. Later editions have been published by Kühn, Leipsic, 1780, and Coray, Paris, 1805.

ÆMILIUS, Paulus, surnamed *Macedonicus*; a noble Roman of the ancient family of the *Æmilii*. He conquered Perseus, king of Macedon, and on this occasion obtained a triumph, A. U. C. 586; B. C. 168. During the triumph, two of his sons died. He bore the loss like a hero, and thanked the gods that they had chosen them for victims, to avert bad fortune from the Roman people. He was father of the renowned Scipio Africanus the younger. His father, a brave general in the second Punic war, commanded and was slain at the battle of Cannæ, B. C. 216.

ÆNEAS; son of Anchises and Venus, next to Hector the bravest among the heroes of Troy. He is the hero of the *Æneid*, in which his life is thus described: In the night of the capture of Troy by the Greeks, Hector warned him in a dream to fly with the images of his gods. **Æ.** rushed, notwithstanding this warning, to the fight, but fought in vain. After Priam was slain, he returned, at the command of his mother, to his home, and carried off his father, his child and his household gods; but lost his wife, Creusa, in the confusion of his flight. With 20 vessels, he sailed for Thrace, where he began to build the city *Ænos*, but, terrified by a miracle, abandoned the attempt. From thence he went to Delos to consult the oracle. Misunderstanding its reply, he went to Crete, from which he was driven by a pestilence. Thence he directed his course to the promontory of Actium, where he celebrated games in honor of Apollo. In Epirus he found

Helenus and Andromache. Thence he sailed by Italy, passed the straits of Messina, and circumnavigated Sicily to cape Drepanum on the western coast, where Anchises died. A tempest drove him on the shore of Africa, where Dido received him kindly in Carthage, and desired to detain and marry him. Jupiter, however, mindful of the fates, sent Mercury to **Æ.** and commanded him to sail for Italy. Whilst the deserted Dido ended her life on the funeral pile, **Æneas** set sail with his companions, and was cast by a storm on the shore of Sicily, in the dominions of his Trojan friend Acestes, where he celebrated funeral games in honor of his deceased father. The wives of his companions, weary of a seafaring life, and instigated by Juno, set fire to the ships, on which he resolved to depart, leaving behind the women and the sick. In this resolution he was confirmed by Anchises, who admonished him in a dream to descend, by the aid of the sibyl, into the infernal regions, after his arrival in Italy. He built the city Acesta, and then sailed for Italy, where he found the sibyl, near Cumæ, who foretold his destiny, and aided his descent into the lower world. On his return, he embarked again, and reached the eastern shore of the river Tiber, in the country of the Laurentian king Latinus. His daughter, Lavinia, was destined by an oracle to a stranger, but promised by her mother, Amata, to Turnus, king of the Rutuli. This occasioned a war, after the termination of which, **Æ.** married Lavinia. Thus Virgil relates the history of **Æneas** in his *Æneid*, deviating in many particulars from historical truth. His son by Lavinia, **Æneas** Sylvius, was the ancestor of the kings of Albalonga, and of Romulus and Remus, the founders of the city of Rome. By his first wife, he had a son, Ascanius, who built Albalonga, from whose son, Iulus, the Romans derived the Julian family. For the different traditions respecting **Æneas**, and the probability of their late introduction among the Romans, see Niebuhr's *Roman History*, chapter entitled *Æneas and the Trojans in Latium*.

ÆNEID. (See *Virgil*.)

ÆNESIDEMUS; a sceptical philosopher, born at Gnosus, who flourished a little later than Cicero, and taught scepticism, in Alexandria, to a greater extent than had been done before. He placed truth in the general agreement of men as to the impressions produced by external objects.

ENIGMA; a proposition put in ob-

secure, ambiguous, and generally contradictory terms, to puzzle or exercise the wit in finding out its meaning; or an obscure discourse covering some common and well known thing under remote and uncommon terms. Many distinguished poets have written ænigmas in verse. In the East, they have been in vogue, both in ancient and modern times. Every nation has shown a fondness for them in the infancy of its cultivation. A great part of the Egyptian learning is said to have been comprised in ænigmas. In these, too, the ancient oracles often spoke. But the symbols of the ancient religions should not, as is often the case, be confounded with ænigmas. (See *Hieroglyphics*.) They were in vogue among the Jews.

ÆOLIAN HARP, or **ÆOLUS' HARP**, was introduced into England about the middle of the last century. It is generally a simple box of thin, fibrous wood (often of deal), to which are attached a number of fine catgut strings, sometimes as many as 15, of equal size and length, and consequently unisons, stretched on low bridges at each end. Its length is made to correspond with the size of the window or other aperture in which it is intended to be placed; its width is about five or six inches, its depth two or three. It must be placed with the strings uppermost, under which is a circular opening in the centre as in the belly of the guitar. When the wind blows athwart the strings, it produces the effect of a choir of music in the air, sweetly mingling all the harmonic notes, and swelling or diminishing the sounds according to the strength or weakness of the blast. A more recent Æolian harp, invented by Mr. Cross-thwaite, has no sounding-board, but consists merely of a number of strings extended between two deal boards. The invention of the Æolian harp has been generally ascribed to father Kircher, but the fact is, that it was known and used at a much earlier date in the East, as Mr. Richardson has proved (*Dissertation on the Manners and Customs of the East*).

ÆOLIANS; a Greek tribe in Thessaly, who took their name from Æolus, son of Hellen, and grandson of Deucalion, spread themselves there, and established several small states. A portion of them went to Asia Minor, and possessed themselves of the ancient Troas, giving the territory the name of *Æolis*. While united in a confederacy, which held its yearly meetings, with much solemnity, at Cuma, they long continued free; afterwards, they came under

the dominion of the Lydians, then of the Persians. After they had thrown off the Persian yoke, with the help of Athens, they were again subdued by Darius Hystaspes, and, as the Greeks had afforded them repeated aid, the famous Persian war arose, B. C. 500. They regained their liberty, but once more came under the Persian dominion, and so remained till the time of Alexander; and at length, after they had been freed by the Romans from the yoke of the Syrian kings, successors of Alexander in this portion of his vast empire, they were totally subdued by Sylla, because they had assisted Mithridates. Their language, the Æolian dialect, was one of the three principal dialects of the Greek; their country was one of the most fertile in the world; agriculture and the raising of cattle were their chief occupations.

ÆOLIPILE; a spherical vessel of metal, with a pipe of small aperture, through which the vapor of heated water in the ball passes out with considerable noise. The ancient philosophers thought to explain by this experiment the origin of the winds. In Italy, it is said that the æolipile is used to remedy smoky chimneys.

ÆOLUS; in Homer, the son of Hippotas, and king of the island Lipara, to the north of Sicily. He is described as pious and just, hospitable to strangers, and the inventor of sails; having, moreover, foretold the course of the winds, with the utmost exactness, from his own observation, he was said to have the power of directing their course. His history was afterwards still more embellished with fiction; the poets made him a son of Jupiter or Neptune, and god of the winds. He is represented as an old man, with a long beard, holding a sceptre in his hand, sitting on a rock, or smiting the rock with his sceptre, at which signal the winds rush out. He is represented, also, standing in a grotto with a muscle in his mouth, and a pair of bellows under his feet.

ÆRA is used synonymously with *epoch*, or *epocha*, for a fixed point of time, from which any computation of it is made. *Æra* is more correctly the range or circuit of years within certain points of time, and an epoch is one of those points itself. The word *æra* has been supposed to be derived from the abridgement, or initial letters, of *Annus Erat Augusti*, A.ER.A., a mode of computing time in Spain from the year of the conquest of that country by the Romans; and Vossius favors this opinion. Various

æras have been given by chronologists as aids in historical research; and it was a long time before all the Christian world agreed to compute time by the Christian æra. Mariana says that the Spanish æra ceased in the year of Christ 1383, under John I, king of Castile. It continued to be used somewhat longer in Portugal. We must subtract 38 from the number of a year of the Spanish æra to get that of the Christian. The Mahometan æra begins with the flight of the prophet, 16th July, 622. This is called the *Hegira* (q. v.) The ancient Roman æra began with the building of the city, 750 before Christ. The Jewish æra begins with the creation.

ÆRIAL PERSPECTIVE; that branch of the science of perspective, which treats of the relative diminution of the colors of bodies in proportion to their distance from the eye.

ÆRIANS; the followers of Ærius, an Arian monk and schismatic, who was exiled from Sebaste, in Armenia, because he denied the difference between the official power of a bishop and a presbyter, pronounced prayers and offerings in behalf of the dead to be ineffectual and injurious, rejected the ordinance of fasting, and declared the practice prevailing among Christians, of sacrificing a lamb on the passover, to be contrary to the spirit of their religion. Though guilty, in fact, only of opposing the abuses of the hierarchy, and the corruptions of superstition, the Ærians were condemned as heretics, and soon disappeared. The Protestants were accused of Ærianism by the Catholics, because they maintained propositions of a similar character.

ÆRODYNAMICS; a branch of ærology, or the higher mechanics, which treats of the powers and motion of elastic fluids. Ærodynamics are often explained in connexion with hydrodynamics, a branch of hydrology. (See *Mechanics*.)

ÆROLITES; stones or masses that descend from the air. (See *Meteoritic Stones*.)

ÆRONAUTICS; the art of sailing in or navigating the air. The idea of inventing a machine, which should enable us to rise into the air, appears to have occupied the human mind even in ancient times, but was never realized till the last century. Henry Cavendish, having discovered, about 1766, the great levity of inflammable air or hydrogen gas, Dr. Black, of Edinburgh, was led to the idea that a thin bladder, filled with this gas, must ascend into the air. Cavallo made the requisite experiments in 1782, and found that a bladder was too heavy, and paper

not air tight. Soap bubbles, on the contrary, which he filled with inflammable air, rose to the ceiling of the room, where they burst.—In the same year, the brothers Stephen and Joseph Montgolfier constructed a machine which ascended by its own power. In Nov. 1782, the elder Montgolfier succeeded, at Avignon, in causing a large bag of fine silk, in the shape of a parallelopiped, and containing 40 cubic feet, to mount rapidly upwards to the ceiling of a chamber, and afterwards, in a garden, to the height of 36 feet, by heating it in the inside with burning paper. The two brothers soon afterwards repeated the experiment at Annanay, where the parallelopiped ascended in the open air 70 feet. A larger machine, containing 650 cubic feet, rose with equal success.—They now resolved to make the experiment on a large scale, and prepared a machine of linen, lined with paper, which was 117 feet in circumference, weighed 430 pounds, and carried more than 400 pounds of ballast. This they sent up, June 5, 1783, at Annanay. It rose in ten minutes to a height of 6000 feet, and fell 7668 feet from the place of ascension. The method used to cause it to ascend was, to kindle a straw fire under the aperture of the machine, in which they threw, from time to time, chopped wool. But, though the desired effect was produced, they had no clear nor correct idea of the cause. They did not attribute the ascension of the vessel to the rarefaction of the air enclosed in it by the operation of the heat, but to a peculiar gas, which they supposed to be developed by the burning of the straw and wool. The error of this opinion was not discovered till a later period.—These experiments roused the attention of all the philosophers of Paris. It occurred to some of them, that the same effect might be produced by inflammable air. M. Charles, professor of natural philosophy, filled a ball of lutestring, 12 feet in diameter, and coated with a varnish of gum-elastic, with such gas. It weighed 25 pounds, rose 3123 feet in two minutes, disappeared in the clouds, and descended to the earth, after three quarters of an hour, at the village of Gonesse, about 15 miles from Paris.—Thus we see two original kinds of balloons; those filled with heated air, and those filled with inflammable air.—Meantime, Montgolfier had gone to Paris, and found an assistant in Pilatre de Rozier, the superintendent of the royal museum. They completed, together, in Oct. 1783, a new machine,

74 feet in height and 48 in breadth, in which Rozier ventured for the first time to ascend, though only 50 feet. The balloon was from caution fastened by cords, and soon drawn down. Eventually, the machine, being suffered to move freely, took an oblique course, and at length sunk down gradually about 100 feet from its starting place.—By this the world was convinced that a balloon might, with proper management, carry a man through the air; and the first aerial expedition was determined on. Nov. 21, 1783, Pilatre de Rozier and the marquis d'Arlandes ascended from the castle la Muette, in the presence of an innumerable multitude, with a machine containing 6000 cubic feet. The balloon, after having attained a considerable height, came down, in 25 minutes, about 9000 yards from la Muette. But the daring aeronauts had been exposed to considerable danger. The balloon was agitated very violently several times; the fire had burnt holes in it; the place on which they stood was injured, and some cords broken. They perceived that it was necessary to descend without delay; but when they were on the surface of the earth, new difficulties presented themselves. The weak coal fire no longer supported the linen balloon, the whole of which fell into the flame. Rozier, who had not yet succeeded in descending, just escaped being burnt.—M. Charles, who had joined with M. Robert, soon after informed the public that they would ascend in a balloon filled with inflammable air. To defray the necessary expense of 10,000 livres, he opened a subscription. The balloon was spherical, 26 feet in diameter, and consisted of silk coated with a varnish of gum-elastic. The car for the aeronauts was attached to several cords, which were fastened to a net, drawn over the upper part of the balloon. A valve was constructed above, which could be opened from the car, by means of cords, and shut by a spring. This served to afford an outlet to the inflammable air, if they wished to descend, or found it necessary to diminish it. The filling lasted several days; and, Dec. 1, the voyage was commenced from the gardens of the Tuileries. The balloon quickly rose to a height of 1800 feet, and disappeared from the eyes of the spectators. The aeronauts diligently observed the barometer, which never stood at less than 26°, threw out gradually the ballast they had taken in to keep the balloon steady, and descended safely at Nesle. But as soon as Robert stepped out, and it

was thus lightened of 130 pounds, it rose again with great rapidity about 9000 feet. It expanded itself with such force, that it must have been torn to pieces, had not Charles, with much presence of mind, opened the valve to accommodate the quantity of gas to the rarity of the surrounding atmosphere. After the lapse of half an hour, the balloon sunk down on a plain, about three miles from the place of its second ascent.—These successful aerial voyages were soon followed by others. Blanchard had already ascended several times, when he determined to cross the channel between England and France, which is about 23 miles wide, in a balloon filled with inflammable air. He succeeded in this bold attempt, Jan. 7, 1785, accompanied by an American gentleman, Dr. Jeffries. About one o'clock, they left the English coast, and at half past two, were on the French. Pilatre de Rozier, mentioned before as the first aeronaut, attempted, June 14, 1785, in company with Mr. Romain, to pass from the French to the English side; but the attempt was unsuccessful, and the adventurers lost their lives. M. de Rozier had on this occasion united the two kinds of balloons; under one, filled with inflammable air, which did not alone possess sufficient elevating power, was a second, filled by means of a coal fire under it. Rozier had chosen this combination, hoping to unite the advantages of both kinds. By means of the lower balloon, he intended to rise and sink at pleasure, which is not possible with inflammable air; for a balloon filled with this, when once sunk to the earth, cannot rise again with the same weight, without being filled anew; while, on the contrary, by increasing or diminishing the fire under a balloon filled with heated air, it can be made to rise and fall alternately. But this experiment caused the death of the projectors. Probably the coals, which were only in a glowing state near the surface of the ground, were suddenly kindled to a light flame as the balloon rose, and set it on fire. The whole machine was soon in flames, and the two aeronauts were precipitated from on high. The condition of their mangled bodies confirms the conjecture that they were killed by the explosion of the gas.—This unhappy accident did not deter others; on the contrary, the experiments were by degrees repeated in other countries.—However important this invention may be, it has as yet led to no considerable results. Its use has hitherto been confined to obser-

ventions in the upper regions of the atmosphere. But should we ever learn to guide the balloon at will, it might, perhaps, be employed for purposes of which we now have hardly an idea; possibly the plan of professor Robertson might be accomplished by the construction of a gigantic balloon, which would enable us to perform an aerial circumnavigation of the earth. During the French revolution, an ærostatic institution was founded at Meudon, not far from Paris, for the education of a corps of aeronauts, with the view of introducing balloons into armies as a means of reconnoitring the enemy. But this use of balloons was soon laid aside, for, like every other, it must be attended with great uncertainty, as long as the machine has to obey the wind. Among the French, Blanchard and Garnerin have undertaken the greatest number of aerial voyages; among the Germans, professor Jungius, in Berlin, in 1805 and 1806, made the first. Since that time, professor Reichard and his wife have become known by their aerial excursions. Even in Constantinople, such a voyage was performed, at the wish and expense of the sultan, by two Englishmen, Barly and Devigne. Blanchard has rendered an essential service to aeronauts by the invention of the parachute, which they can use, in case of necessity, to let themselves down without danger. Many attempts have been made to regulate the course of balloons, by means of oars, wings, &c., but hitherto with little success.

ÆROSTATION, or ÆROSTATICS, is the science of weighing air, either by itself or with other substances. Since the invention of the balloon, this term has been sometimes applied to the art of managing balloons, which is more properly called *aeronautics*, (q. v.)

ÆSCHINES; a famous orator of Athens; born 393, died 323, B. C. Being the son of poor parents, he passed his youth among the lower classes, with whom he wandered about, partaking in their amusements, particularly in the festivals in honor of Bacchus. Encouraged by their applause, he became an actor, acquired the right of citizenship, engaged in politics, attended the lectures of Plato and Isocrates, and soon became the rival of Demosthenes, whom, however, he did not equal in power and energy, although he was distinguished by a happy choice of words, and by richness and perspicuity of ideas. He gradually lost the favor of the people, and fled to Rhodes and Samos, where he

gave instruction in rhetoric till his death. Three orations and twelve letters of his are extant. They are to be found in the collections of Aldus, Stephanus and Reiske, (3d and 4th vols.)

ÆSCHINES, the philosopher, a native of Athens, who, by way of distinction from the preceding, is called the *Socratic*, was a poor disciple of Socrates. We possess under his name three dialogues, "On Virtue," "On Riches," and "On Death," which, however, are not allowed by strict critics to be genuine. The best edition is that of I. F. Fischer, Leipsic, 1786.

ÆSCHYLUS; the father of ancient Greek tragedy; born in the 3d or 4th year of the 63d Olympiad (525 B. C.), at Eleusis, in Attica, of a noble family. Of the circumstances of his life we have but deficient and uncertain accounts. He fought in the battles of Marathon and Salamis, witnessed the destruction of the power of Darius and Xerxes, and wrote his tragedies under the proud feeling of a successful struggle for liberty. In these he first raised the tragical art from the rude beginnings of Thespis to a dignified character, so that he may be considered as its real creator. Tragedy sprang from his head in full armor (says A. W. Schlegel), like Pallas from the head of Jupiter. He clothed it with becoming dignity, and gave it an appropriate place of exhibition; he invented scenic pomp, and not only instructed the chorus in singing and dancing, but appeared himself in the character of a player. He first perfected the dialogue, and reduced the lyrical part of the tragedy, which still, however, occupies too much space in his plays. His characters are sketched with a few bold and strong features; his plots are extremely simple, but grand. His art knew nothing of intrigues and developments. All his poetry reveals a lofty and ardent mind. Not the softer emotions, but terror is his ruling characteristic. He holds up the head of Medusa to the overawed spectators. His manner of treating fate is terrible in the extreme; in all its gloomy majesty it hovers over mortals. The Cothurnus of Æschylus is of an iron weight; none but giant figures stride in it. It appears to have required an effort in him to represent mere men. He deals commonly with gods, especially the Titans, those elder deities, the symbols of the dark primitive powers of nature, long since cast down to Tartarus. In accordance with the grandeur of his figures, he endeavors to make their language gigantic.

Thence arise harsh expressions, overloaded with epithets, and frequently, in his chorus, intricate constructions and great obscurity. In the daring grandeur of his images and expressions, he resembles Dante and Shakspeare. We have only 7 of his tragedies remaining: their whole number is stated to have been 70; according to some, 90; but among these, according to the testimony of the ancients, we have some of his principal works. They are, "The Prometheus Vincetus," "The Seven before Thebes," "The Persians," "Agamemnon," "The Choëphoræ," "The Eumenides," and "The Suppliants." Disgusted at seeing inferior pieces preferred to his own, and particularly at the victory of the young Sophocles, or, according to the more probable account, compelled by an accusation of atheism, Æschylus left his native country, and went to Sicily, where he was received with great honors by king Hiero, and died 456 B. C., at the age of 70 years. The best editions of his works are, London, 1663 and 1664, folio, by Stanley; Hague, in 1745, 2 vols. quarto, by Paw; and Halle, 1809 to 1821, 5 vols. 3d edition by Schütz. Single plays have been published by Brunck, Herrmann, Blomfield, and others.

ÆSCULAPIUS; the god of medicine. Some writers call him a son of Apollo and Arsinoë, daughter of Leucippus; others, of Apollo and Coronis, daughter of Phlegyas. There are also different accounts of the wonders which befell his infancy. According to some, he was exposed by his mother, suckled by a goat, found by shepherds, and his divine nature recognised by a glittering halo round his head: according to others, Coronis having admitted the embraces of Ischys as well as those of Apollo, the latter, in a fit of anger (or Diana in his stead), killed Coronis, but saved the child from her womb. The last opinion was the most common, and was confirmed by the Pythian oracle. Apollo afterwards brought his son to Chiron, who instructed him in medicine and hunting. In the former he acquired a high degree of skill, so as to surpass even the fame of his teacher. He not only prevented the death of the living, but even recalled the dead to life. Jupiter, however, induced by the complaints of his brother Pluto, slew Æ. with a thunderbolt. After his death, he received divine honors. In particular, he was worshipped at Epidaurus in Peloponnesus, (see *Argolis*), where a temple with a grove was dedicated to him. From the

accurate register here kept of the most remarkable diseases and their remedies, the greatest physicians gathered experience and knowledge. Thence his worship spread over all Greece, and finally to Rome. After the plague had raged there for three years, ambassadors were sent to Æsculapius at Epidaurus by the advice of the Delphian Apollo. They had hardly appeared before the god, when a serpent crept from beneath his image, and hastened directly to the Roman ship. This serpent, which was thought to be Æsculapius himself, was carried with great solemnity to Rome, upon which the plague ceased. Æsculapius had two sons, Machaon and Podalirius, who were called *Asclepiades*, and during the Trojan war made themselves famous as heroes and physicians. His daughters were Hygeia, Iaso, Panacea and Ægle, the first of whom was worshipped as the goddess of health. Æsculapius is represented with a large beard, holding a knotty staff, round which was entwined a serpent, the symbol of convalescence. Near him stands the cock, the symbol of watchfulness. He is sometimes crowned with the laurel of Apollo. Sometimes his little son Telesphorus is represented beside him, with a cap upon his head, wrapped up in a cloak. Sometimes Æsculapius is represented under the image of a serpent only.

ÆSOP; the oldest Greek fabulist. He is said to have been a native of Phrygia, and a slave, till he was set free by his last owner. He lived about the middle of the 6th century B. C. He inculcated rules of practical morality, drawn from the habits of the inferior creation, and thus spread his fame through Greece and all the neighboring countries. Cræsus, king of Lydia, invited Æsop to his court, and kept him always about his person. Indeed, he was never absent, except during his journeys to Greece, Persia and Egypt. Cræsus once sent him to Delphi to offer a sacrifice to Apollo; while engaged in this embassy, he wrote his fable of the Floating Log, which appeared terrible at a distance, but lost its terrors when approached. The priests of Delphi, applying the fable to themselves, resolved to take vengeance on the author, and plunged him from a precipice. Planudes, who wrote a miserable romance, of which he makes Æsop the hero, describes him as excessively deformed and disagreeable in his appearance, and given to stuttering; but this account does not agree with what his contemporaries say of him.

The stories related of Æsop, even by the ancients, are not entitled to credit. A collection of fables made by Planudes, which are still extant under the name of the Grecian fabulist, are ascribed to him with little foundation; their origin is lost in the darkness of antiquity. Of the early editions, the most valuable are those by Henry Stephens, Paris, 1546, 4to.; and by Hudson, Oxford, 1718. More lately, they have been published from the manuscript, in a very different form, by De Faria, 2 vols., Florence, 1809, and Leipzig, 1810; Coray, Paris, 1810; and Schneider, Breslau, 1811. These fables have had numberless imitators.

ÆSOPUS, Clodius, a celebrated actor, who flourished about the 670th year of Rome. He was a contemporary of Roscius. His folly in spending money on expensive dishes made him as conspicuous as his dramatic talents. He is said, at one entertainment, to have had a dish filled with singing and speaking birds, which cost £800. When acting, he entered into his part to such a degree as sometimes to be seized with a perfect ecstacy. Plutarch mentions it as reported of him, that, whilst he was representing Atreus, deliberating how he should revenge himself on Thyestes, he was so transported beyond himself, that he smote with his truncheon one of the servants who was crossing the stage, and killed him on the spot.

ÆSTHETICS (from the Greek *αισθησις*, perception); the science which treats of the beautiful, and of the various applications of its principles. Baumgarten, a professor in the university at Frankfurt on the Oder, first used this name, and intended to designate by it a branch of philosophy, which should establish correct principles of criticism in relation to the beautiful. Since the time of Baumgarten, this word has been used in Germany, France, and Italy, and has lately been employed by some English writers. For the character of the science, and the attention which it has received, see *Philosophy*.

ÆTHER; an extremely fine, subtile and elastic fluid, which philosophers have supposed to be diffused throughout the universe, and by means of which they have explained many of the great phenomena of nature. It is mentioned by Aristotle. Its existence cannot be proved. Newton believed in it, and explains by it the connexion of the parts of a body, and the laws of gravity. Euler asserts that æther is almost 39,000,000 times thinner, and 1,278 times more elastic, than atmospheric air.

ÆTHER; in chemistry. (See *Ether*.)

ÆTHIOPIA. (See *Ethiopia*.)

ÆTHRA. (See *Thæseus*.)

ÆTIUS; one of the most zealous defenders of Arianism, born in Syria, flourished about 336, and his followers were called *Ætians*.

ÆTNA (in Italian, *monte Gibello*); the famous volcanic mountain on the eastern coast of Sicily, not far from Catania. This mountain rises more than 10,000 feet above the surface of the sea; Buffon thinks, 2000 fathoms; Saussure gives 10,963 feet, Spallanzani 11,400, and sir G. Shuckburgh 10,954. Its circumference at the base is 180 miles. On its sides are 77 cities, towns and villages, containing about 115,000 inhabitants. From Catania to the summit the distance is 30 miles, and the traveller must pass through three distinct climates—the hot, the temperate and the frigid. Accordingly, the whole mountain is divided into three distinct regions, called the fertile region (*regione culta*), the woody region (*regione selvosa*), and the barren region (*regione deserta*). The lowest region extends through an ascent of from 12 to 18 miles. The city of Catania and several villages are situated in the first zone, which abounds in pastures, orchards, and various kinds of fruit-trees. Its great fertility is ascribed chiefly to the decomposition of lava; it is perhaps owing, in part, to cultivation. The figs and fruits in general, in this region, are reckoned the finest in Sicily. The lava here flows from a number of small mountains, which are dispersed over the immense declivity of Ætna. The woody region, or temperate zone, extends from 8 to 10 miles in a direct line towards the top of the mountain; it comprehends a surface of about 40 or 45 square leagues, and forms a zone of the brightest green all round the mountain, exhibiting a pleasing contrast to its white and hoary head. It is called *la regione selvosa*, because it abounds in oaks, beeches and firs. The soil is similar to that of the lower region. The air here is cool and refreshing, and every breeze is loaded with a thousand perfumes, the whole ground being covered with the richest aromatic plants. Many parts of this region are the most delightful spots upon earth, and have inspired ancient and modern poets with images of beauty and loveliness. The animal kingdom of these two regions is not equal in point of richness to the vegetable. The upper or barren region is marked out by a circle of snow and ice. Its surface is, for

the most part, flat, and the approach to it is indicated by the decline of vegetation, by uncovered rocks of lava and heaps of sand, by near views of an expanse of snow and ice, and of torrents of smoke issuing from the crater of the mountain, also by the difficulty and danger of advancing amidst streams of melted snow, sheets of ice, and gusts of chilling winds. The curious traveller, however, thinks himself amply rewarded, upon gaining the summit, for the peril which he has encountered. The number of stars seems increased, and their light appears brighter than usual; the lustre of the milky way is like a pure flame that shoots across the heavens; and with the naked eye we may observe clusters of stars totally invisible in the lower regions. The scorix, of which the mountain is composed, have the same kind of base, containing schorl and feldspar. The first eruption of which we have any authentic account, is mentioned by Diodorus Siculus. The last eruption took place in 1819. It appears very probable that mount Ætna is exhausting its volcanic powers, as the eruptions of modern times are by no means so frequent as in former ages, nor are they so tremendous in their extent and effects. Before the Christian era, there were 9 eruptions, of which those in 477 and 121 B. C. are the most important: after Christ, the most important are those in 1160, 1169, 1329, 1536, 1537, 1669, 1693, 1763, 1787, 1792, 1802, 1809, 1811, 1819. Mount Ætna supplies Sicily and a large part of Italy, and even Malta, with the luxury of snow and ice. The trade in these articles belongs to the bishop of Catania, who, as it is stated, makes from 3000 to 4000 dollars per annum by it. The vegetation of the woody region is exceedingly luxuriant. There is one chestnut tree, under which 100 horses may be sheltered against the sun; it therefore is called *dei cento cavalli*. (See *Denon's Voyage pittoresque en Sicile*, vol. 4., and *Alexander von Humboldt's Personal Narrative*.) Since 1824, Catania has had the *Gioenian Academy* (so called in honor of the chevalier Giuseppe Gioeni, author of a *Litologia Vesuviana*), the object of which is to investigate the topography and natural history of Ætna.

ÆTOLIA; a country in Greece, on the northern coast of the Corinthian gulf; so called from Ætolus, the brother of Epeus, king of Elis, who, escaping from Elis, made himself master of this region. Ancient Ætolia was separated from Acarnania by the river Achelous, and extended thence to Calydon, or to the river

Evenus. On the south lay the gulf of Corinth, and Thessaly on the north. Its extent from north to south was about 48 miles, and from east to west above 20. It was subsequently enlarged by successful wars. The additions were comprehended under the name of *Ætolia Epicetotos*. The borders of Ætolia on the north were now mount Ceta and the Athamans in Epirus. Thermopylæ, Heraclæa, and a great part of Thessaly also belonged to it. On the east, Doris and the coast as far as Naupactus and Eupalion were added to it. The country was rough and unfruitful, but strong by reason of its mountains. According to Herodotus and Aristotle, lions infested Æ. in the most ancient times. The original ancestors of the Ætoliens were Hellenes. Divided into small tribes, they had no principal city; they were occupied in hunting and robbery, and made themselves feared both on land and sea. In their state of independence, they preserved for a long time their ancient rudeness of manners. They very early formed the great Ætolian confederacy, which assembled once a year at Therma, but first became remarkable in the time of the Achæan league. To oppose this confederacy they united with the Romans; and afterwards deserted them, on perceiving that their freedom was in danger from their allies. They then went over to the side of the Macedonians, with whom they were obliged at last to submit to the Roman yoke. The government of Æ. was republican, controlled by the *Panætolium*, a general council, held as occasion required. Livy says that their cavalry was at one period esteemed superior to that of any other of the Grecian states.

AFFA; a weight on the Gold Coast of Guinea, equal to one ounce.

AFFINITY; in chemistry. When two bodies are brought in contact with each other, they will often, without the sensible operation of any extraneous influences, combine by a spontaneous and reciprocal action, and form new bodies with different properties; a single body, modified by the action of the natural agents, caloric, electricity, &c. sometimes produces the same results; finally, a body not apparently acted upon by other bodies, nor by the natural agents, sometimes acquires new properties, and assumes new forms. These changes in the chemical character of bodies are produced by a force, to which we give the name of *affinity*. Some of the laws or modes of action of this force are, that it is exerted only at

insensible distances, which distinguishes it from *gravitation* (see *Attraction*), and between heterogeneous particles, in which it differs from *cohesion* (q. v.) The properties of the resulting compound differ essentially from its component parts, as a salt is formed by an acid and an alkali. The forms of the elements are often changed, and the change is attended with remarkable phenomena, as the explosion of gunpowder by its conversion into gases, the solidification of water in slaking lime, &c. One of the most important laws of affinity is, that one body has not the same force of affinity towards all others, but attracts them very unequally, and some of them not at all. The knowledge of the affinities of different bodies is of great use to the chemist in effecting decompositions. Bergmann, who first, in 1775, developed the theory of affinities, distinguishes three cases in the reciprocal action of two bodies—when they are both free, which he calls *simple affinity*; when one of them is already in combination, *elective*; and when both are combined in different compounds, *complex*. Berthollet has much improved the theory of affinities. (See *Berthollet's Statique chimique*, and *Berzelius's Theory of chemical Proportions*.)

AFFINITY, in law, is that degree of connexion, which subsists between one of two married persons and the blood relations of the other. It is no real kindred. A person cannot, by legal succession, receive an inheritance from a relation by affinity; neither does it extend to the nearest relations of husband and wife, so as to create a mutual relation between them. The degrees of affinity are computed in the same way as those of consanguinity, or blood. By the Jewish law, marriage was prohibited within certain degrees. Nearly the same limitations are adopted into the laws of Europe and America. All legal impediments, arising from affinity, cease upon the death of the husband or wife, excepting, of course, those which relate to the marriage of the survivor. The table of forbidden degrees of affinity is, by the ecclesiastical law of England, commanded to be hung up in all churches. The Roman church speaks of *spiritual affinity*, which is contracted by the sacraments of baptism and confirmation; according to which a godfather may not marry his god-daughter without a dispensation.

AFFIRMATION signifies, in one sense, the solemn declarations of Quakers, and members of some other sects, in confir-

mation of their testimony in courts of law, or of their statements on other occasions, on which the sanction of an oath is required of other persons. The English laws did not permit affirmations instead of oaths, in criminal cases, until 1828. No distinction has been made, in any of the United States, between testimonies in civil and criminal cases in this respect, it having been permitted to Quakers generally, and, for the most part, to other persons scrupulous about swearing, to give testimony upon mere solemn affirmation. Even the president of the U. S. is allowed to affirm instead of taking the usual oath, when inducted into office, if he has conscientious scruples about swearing. The privilege of affirmation is allowed in Prussia only to sects recognised by government, and whose principles do not permit them to make oath. False affirmation is subjected to the same penalties as perjury in England and elsewhere.

AFFRY, Lewis Augustinus Philip, count of, first magistrate of Switzerland after Napoleon had proclaimed himself the protector of the Helvetic confederacy, was born at Freyburg, 1743. He was early destined to a military life, accompanied his father on an embassy to the Hague, soon became adjutant in the Swiss guards, and was finally elevated to the rank of lieutenant-general. At the commencement of the revolution, he commanded the army on the Upper Rhine, till Aug. 10, 1792, when, the Swiss troops having been disbanded, he returned to his country, and became a member of the secret council at Freyburg. Switzerland being menaced, in 1798, with a French invasion and a revolution, he resumed the command of the troops. He acknowledged the uselessness of resistance, conducted himself with undeviating prudence, and averted as much as possible from his country the evils of war and rebellion. When Freyburg was taken by the French, he became a member of the provisional government. He had no share in the insurrections of 1801 and 1802, but accepted with pleasure the appointment of deputy to Paris, when the first consul invited the Swiss to send delegates thither, and offered them his mediation. Napoleon distinguished him above the other deputies, and intrusted to him the formation of an administration, which was to ensure the peace and happiness of the ancient allies of France. Feb. 19, 1803, A. received from the first consul the act of mediation, was appointed first magistrate for this year, and invested with ex-

raordinary powers, until the convocation of a diet. He sought to promote the views of the first consul, and acted, in every thing, with the ability, the intelligence and the experience of a thorough statesman. He died June 16, 1810.

AFGHANISTAN, or AFGHAUNISTAN, the country of the Afghans, or Cabulists, also called the *kingdom of the Abdallians*, contains 350,000 square miles, is bounded on the north, towards Budukshan, by mount Hindoo-Koh and Paropamisus; on the east, towards Hindostan, by the Indus and mount Solomon; on the south, by the vale of Bolahn and the mountains near Sistan; on the west, towards Iran, by the great desert. The Hindoo-Koh is a continuation of the Himalaya; many ranges run in all directions from the Paropamisus and mount Solomon. The Indus is the principal river. The atmosphere is dry and healthy, and some of the valleys are very fertile. The untilled portions serve as pastures for cattle. It abounds in silver, lead, iron, sulphur, lapis lazuli, cotton, horses, asses, dromedaries, camels, oxen, sheep with fat tails, goats, &c., and contains, also, several species of carnivorous animals. Of the 14,000,000 of inhabitants, 4,300,000 are Afghans, and 5,700,000 are Hindoos; the remaining part consists of Tadshicks (descendants of the ancient Persians), with Tartars and Belooches. Their religion is that of Mahomet. Besides the capital, Cabul, which contains 80,000 inhabitants, there are other important cities; as Candahar, a fortress and commercial place, of 100,000 inhabitants; Peshawur, or Peshour, of 100,000 inhabitants, &c.; Bulk, or Balk (the ancient Bactria, now inhabited by Usbecks), and Cashmere. These are almost independent cities on the frontiers. The king is of the house of Saddosei; the throne is hereditary, but limited by the power of the chiefs of the tribes. The British couriers and travellers, who are going to Bagdad, generally prefer the way by Cabul. In consequence of the influence of the English over the people of A., the Persian court at Tehraun is subjected to an unwilling dependence on the East India company, which acts as protector of Persia and of A., and has contributed much to the preservation of peace between the two nations, as far as the aristocratic character of the government of A. admits. Private quarrels, however, frequently happen between the Persian governors and the chiefs of A. The great influence of the English in the East, over the nations of the Lower Indus (seiks), is

continually exerted to prevent these powerful nations from weakening one another by wars, with a view of advancing the commercial interests of the English company, and of providing a bulwark against the progress of the Russian conquests beyond the Caucasus, in Lower Persia, in Armenia, and on the Caspian sea. But, in spite of these precautions, the rajah of Lahore, Rungeet Singh, has usurped the throne of Cabul, in A., and, to brave the British, has taken many Russians into his service. The Russians trade with the Afghans by way of Bucharia.

AFGHANS, or AFGHAUNS, signifying *mountaineers*, is the name of a powerful nation, called also *Patans*, in the eastern part of Persia, in the kingdom of Cabulistan. They originally lived in the mountains between Persia, Hindostan and Bactria, and are of Median descent. The A.'s are even now wandering tribes; both those of the west, who are robbers, and live in tents, and those of the east, who have more regular settlements. During the revolution in Persia, which took place in 1747, after the death of Nadir Shah, Amed Abdallah, chief of the A.'s in the Persian army, took possession of the provinces of Candahar and Chorasán, made himself independent of Persia, and founded the kingdom of Afghanistan.

AFORE (*avant*, French); all that part of a ship which lies forward, or near the stem.

AFRANCESADOS. This title is used to denote those Spaniards who took the oath of fidelity and allegiance to the constitution of Bayonne and king Joseph, expecting, from the new order of things introduced by the French into Spain, a regeneration of their country. They were also termed *Josefinos*, because they were taken into the Spanish service by Joseph. After the overthrow of the usurper (*intruso*), his principal partisans fled to France, to avoid the hatred of their countrymen. When king Ferdinand VII recovered his throne in 1814, he persecuted, with equal cruelty, the *liberales*, or adherents of the cortes, who had wrought the downfall of the French system, and the *Josefinos*. A gazette of Madrid, the *Atalaya* (Sentinel), demanded their destruction in the following terms: "Is it possible, sire, that the *liberales* and *Josefinos* still exist among us? Why have not a hundred scaffolds, a hundred pyres, been erected in every city and in every village of Spain, to do justice on the wretches?" May 30, 1814, a decree was issued, prohibiting the return of all emigrant afrancesados, more espe-

cially those who had received, from the invading government, any ratification of their former offices, or any new appointment, title, rank, order, &c. In the same decree were included all generals and officers who had fought under the banners of Napoleon or Joseph, and all females who had accompanied their husbands in their emigration. The number of emigrant *liberales* who lived in France was estimated at 16,000; among whom were many distinguished literary characters, and excellent civil and military officers. They published, in London, a journal (*El Español constitucional*), in which they labored to convince their countrymen, that the only remedy for the misfortunes of Spain was the adoption of a liberal constitution. All others were allowed to return, but were compelled to live 50 miles from the capital, under the supervision of the police. The decree of amnesty, published Sept. 29, 1816 (suspended again in 1817), was so constructed, that it did not ameliorate the condition of the banished *Josefinos*. Even the soldiers and officers, returning home after Napoleon's fall, from their captivity in France, were remanded to the frontier, through fear that they might have imbibed liberal or revolutionary principles in France. The continual attempts at rebellion in Spain were, at the same time, the consequence and the cause of the continuance of these severe regulations. When Ferdinand VII accepted the constitution of the cortes, he proclaimed a general amnesty, March 8, 1820, and afterwards allowed all *Josefinos* to reside in any part of Spain, Madrid excepted. The cortes, Sept. 21, 1820, determined that they should be restored to the enjoyment of their rights and possession of their property, but not to their dignities, offices and pensions. They proceeded on the principle, that most of them had been brought by accidental circumstances under the power of the "usurper" (*intruso*), but had, nevertheless, with honest intentions, prepared, in Bayonne, reforms beneficial to their country, and had exerted themselves with spirit to promote its welfare; and that afterwards, becoming involved in inextricable difficulties, they had remained faithful to their oath, king Joseph, and the constitution. The afrancesados have always shown great moderation, and are, for this reason, even now, hated by the *absolutists*. (See *Mexico*.)

AFRANIUS, Lucius, a Roman comic poet, flourished in the first half of the 2d century B. C. He was preëminently the

creator of the Roman national drama, or the *fabula togata*; and his delineations of the life and manners of his countrymen comprehended even the lowest classes, whence arose the *fabula tabernaria*. From the Greeks he borrowed only the outward form of their comedy, and adapted it to the Roman manners, which gave rise to the saying, that the toga of A. perfectly fitted Menander. His coarse expressions and licentiousness have been censured by some critics, but his wit and vivacity are acknowledged by all. He wrote much, but of his many pieces only a few fragments remain.

AFRICA, one of the five divisions of the globe, mentioned in history thousands of years ago, is still to us what it was to the ancients—the land of mystery. Only a small extent of sea separates Africa from Europe; its coasts lie in sight of the most civilized countries; and yet we know nothing more than its outlines: into the interior the foot of a European has lately, for the first time, penetrated. Whether the Africans are descended from a Negro Adam, or whether a descendant of Noah conducted thither from Asia its first inhabitants, who received their black complexion from the fierce heat of the African sun, is a problem which can never be solved. Under the same name which it now bears, the valley of the Nile was, in the earliest ages of history, the cradle of commerce, the arts and sciences. But even in the period of Egypt's greatest prosperity, deep night seems to have enveloped the surrounding countries, which were called *Negroland*. Subsequently, the Greeks (see the very minute accounts of Herodotus) and Romans became better acquainted with the Mediterranean coast of Africa, and penetrated into the interior perhaps as far as the river Joliba; but their knowledge never reached beyond the confines of Numidia, and they were totally ignorant of the southern part of A. How vague was the conception which Ptolemy himself formed of this portion of the earth, though it appeared to him a large peninsula! Its outlines were not determined till the 15th century. Henry, the Navigator, sailed round the formidable cape Non (*non plus ultra*), Diaz and Vasco de Gama discovered the cape of Good Hope, and both the western and eastern coasts were examined by European navigators.—Africa is a vast peninsula, forming a triangle, with its vertex towards the south, containing 12,256,000 (according to Gruberg, 11,031,400) square miles; situated between 18° W. and 51°

E. lon., and from 34° S. to 37° 30' N. lat.; bounded on the north by the Mediterranean, on the east by Asia, the Red sea and Indian ocean, and on the south and west by the Southern and Atlantic oceans. It has a great breadth from east to west. The northern portion is much larger than the southern; the greatest breadth, from west to east, from cape Negro to cape Guardafui, is 69°. Under the equator, the breadth is 4500 geographical miles. The internal structure of Africa is marked by many peculiarities. It possesses immense chains of mountains, extending, perhaps, from the cape of Good Hope to the Mediterranean, in many parallel ranges. Such are the Atlas mountains, the mountains of the Moon, of Kong and Lupata; those of the Cape, 5000 feet high, and covered with continual snows; but, on the whole, it is more level than any other quarter of the globe. In none other do we find such boundless deserts; and the Cobi, in the centre of Asia, is not to be compared with the Sahara. These deserts appear like oceans of sand, by no means destitute of fertile islands. These islands are the Oases, peculiar to Africa. (See *Oases*.) Among the mighty streams of A. we can now follow the Egyptian Nile to its sources. The courses of the other great rivers have not yet been satisfactorily explored. We know, indeed, where the Congo or Zaire, Coanza, and Cuama or Zambese terminate, but not where they rise. The Joliba (the Niger of Herodotus), Mungo Park has informed us, flows from west to east. The Senegal, the Gambia and the Orange are also important rivers. A. contains several large lakes, such as the Dembea, Wangara, Maravi, Tschad and Aquilunda. The climate is various, but in general extremely hot. In the lifeless atmosphere of the tropics, which have but two seasons, the wet and the dry, the heat of the sun is terrible; and Adanson tells of eggs being roasted in the sands of Guinea, and the naked feet of the Negroes blistered. On the coasts, the heat is mitigated by the breezes from the sea and the mountains, and by incessant rains; but the atmosphere is not so healthy and pure as in the interior, which has a higher elevation. The whole tract of Barbary is warmer than the more southerly regions, and all A., compared with Europe, is a hot country. Of its winds, the dry, parching harmattan is peculiar to A.; it has the simoom in common with Asia, and the sirocco with Europe.—To the naturalist, this wonderful country seems the first fa-

vorite of nature, as far as it respects the riches of the organic world, and the number of giant forms of animals and plants. It can enumerate five times as many species of quadrupeds as Asia, and three times as many as all America. It excels Asia in the size of its colossal river-horse (hippopotamus), gigantic giraffe and large antelopes and apes. That giant of birds, the ostrich, is exclusively indigenous to Africa. But the most beneficent gift of nature to the African is the camel, the constitution of which is in every respect adapted to the country and climate. Among the other animals are the elephant and rhinoceros, the lion, panther, leopard, ounce, jackal, hyæna, wolf, fox, dog, cat, mongus, bat, rat, marmot (*cavia capensis*), hare, rabbit, jerboa, porcupine, hedgehog, mole, civet-cat, ichneumon, bear, horse, ass, zebra, sheep (some with hair and large, fat tails), argalis (*capra ammon*), goat, innumerable varieties of the gazelle, the buffalo, fallow-deer. In Guinea are found the roe, swine, emgalos, babyrroussa, and other quadrupeds, whose natural history has been as yet by no means sufficiently investigated; even the problematical unicorn is still said to exist in the interior. The varieties of birds are equally numerous; among which is the crown-bird, the most beautiful of the feathered tribes; the flamingo, kingfisher, pelican, and many kinds of parrots; the peacock, partridge, pheasant, widow and cardinal-bird; the cuckoo, the cuculus indicator, turtle-doves, pigeons, ducks, geese, &c. The class of reptiles comprises the crocodile and boa constrictor, with many other serpents, some innocuous, some highly poisonous. The bays and rivers abound in fish, but the variety of the species is not so great as in the northern seas, and many of the most useful are entirely wanting. The shrubs and earth swarm with termites, ants, scolopendras, spiders and caterpillars, while passing armies of locusts obscure the sun like clouds. The most beautiful insects abound. Still more extraordinary is the force of vegetation. The earth renders back the seed to the cultivator increased a hundred fold, and produces those immense trees, among which the baobab, or monkey bread-tree, whose crown of branches sometimes forms a circle 130 feet in diameter, holds the first rank; the splendid white trunk of the ceiba grows almost perpendicularly from the root to the branches, 60 feet, and, with its fine round crown, rises to a height of 120 feet. In Africa, as in America, the torrid zone

produces plants and fruits, at the same time the most nutritious, the most refreshing and most wholesome. The antiseptical quality appertains to the fruits of the palm, banana, orange, shaddock, pine-apple, tamarind, and to the juice and leaves of the baobab. The best butter (likewise an excellent medicine) may be procured from the shih or butter-tree, in the interior of the west of Africa, and the ground-nuts of Whidah ripen within six weeks from the time of sowing. The vegetable productions, used for sustenance, are principally wheat, barley, millet, *pod abyssinica*, rice, the *convolvulus batatas*, L., yams, lotus berries, gum Senegal, dates, figs, the various kinds of spices, and especially sugar-cane; for drink, coffee is used, palm wine, from the female palm-tree, the milk of cocoa-nuts, and Cape wine; for clothing, cotton, hemp, and even flax. Here thrive the papaw, the pomegranate, five kinds of pepper, the best indigo, the *dracena draco*, from which is procured dragon's blood, the tallow-tree, the best wood for dyeing and cabinet work, innumerable spices, &c. Madagascar is rich in the most valuable productions. Our information respecting the mineral kingdom is the most limited. Of gold, Africa has more than any other portion of the globe; and iron is found in most parts of this continent; but it wants the other metals. Of other minerals, it has only saltpetre, sal ammoniac, some fuller's earth, and emery in abundance; ambergris is found on the coasts. The want of salt, except in a few regions, is most severely felt.—The African races of men offer many points of interest to the inquirer. The majority of them are distinguished from the rest of the human family, not only by their black complexion and curly hair, but also by peculiarities in the construction of the bones of the head and even of the nerves. This seems to imply that the Negro is originally a distinct race. It is thought that traces of this primitive race may still be detected here and there; e.g. of the original Egyptians in the Copts, and of the Guanches (the original inhabitants of the Canaries) in the natives of Barbary. The population is probably between 100 and 110 millions. The interior of the country must be very populous, since, within two centuries and a half, it has contributed 40 millions of vigorous men to the slave trade, and, notwithstanding, is any thing but depopulated. Even the countries along the coast are thickly peopled. Jackson computed the popu-

lation of Morocco alone at 17 millions; and the Barbary states, with Egypt, which constitute but an eighth part of the continent, contain 20 millions. The torrid Guinea has, on the whole, a numerous population; and large cities are situated on the Joliba, of which we hardly know the names. The inhabitants belong to two branches of the human family; to the black, or Ethiopian race, which extends from the Joliba to the southern extremity, comprising, notwithstanding their tawny complexions, the Hottentots; and to the Caucasian race, which includes the natives of Barbary, Copts, the Arabs or Moors, the Agaziones or Abyssinians, and the nations of Nubia. The Arabs are not to be regarded as aborigines of Africa, but they have scattered themselves, and become occupants of the greater part of the north and west. On the islands and some points of the sea-board, we find Portuguese, Spaniards, French, Dutch, British, and even Jews in particular spots; but the Falaschas in Tigre, though they profess the religion of Moses, seem not to be of Hebrew descent.—The Arabic is the leading language throughout all the north, and as far as the Joliba, where it is understood, in some degree at least, by those nations who revere the Koran. The Berber and Shelluh tongues are spoken in the Barbary states, and along the Atlas mountains. The Mandingo language is used from the Senegal to the Joliba. On the western coast, a corrupt Portuguese is heard; in the regions of Abyssinia, the Tigre and Amhara tongues prevail. The languages of the blacks are as multifarious as the nations. In Sahara, alone, 43 dialects are said to be spoken. But of all the 150 languages (this conjectural number was adopted by Seetzen) of the African nations, we are hardly acquainted with 70. Equally manifold are the modes of worship. Mohammedanism has diffused itself over the north to the Joliba, and most of the eastern coast; the Christian religion is professed by the inhabitants of Tigre and Amhara, by the Copts, the Nubians, and European strangers, though with great diversity of forms. The most disgusting Fetishism prevails among most of the Negro nations, demanding, from many of its votaries, human sacrifices.—We must not look to A. for the triumphs of science, not even to the country which was its cradle in the infancy of man. All that the Pharaohs and Ptolemies had ever effected, was swept away by the storms which broke upon this unhappy region

in the middle ages. Schools, however, are still maintained by the Mohammedans in the cities of Barbary, by the Maraboos, in the countries where they have settled, and, here and there, by the Copts and Monophysites in Tigre and Amhara. The arts are exercised only on the northern coasts, where the Moors manufacture much silk, cotton, leather and linen; an active commerce is carried on by them with the maritime nations of Europe, and, by means of caravans, a traffic, full as important, with the interior, to which they convey their own products and those of Europe. Some of the most important routes pursued by the caravans are the following:—1. From Mourzouk, the capital of Fezzan, to Cairo, 30 days' journey, by way of the market-places and encampments Siwah, Augila and Temissa. 2. From Mourzouk to Bornou, 50 days' journey, by way of the deserts of Bilma and Tibesti; the market-places and encampments are Temissa, Dombou and Kanem. 3. From Mourzouk to Cashna or Cassina, 60 days' journey, by way of Hiatts, Ganatt and Agadez. 4. From Fez to Timbuctoo, 54 days'; but a halt of some time is made at the encampments; e. g. at Akka or Tatta, the general rendezvous, at Tegaza and Aroan, 65 days; so that this caravan is 119 days in reaching its place of destination. 5. Another route along the sea coast leads through Wadai, cape Bojador and Gualata. 6 and 7. The caravans from Sennaar and Darfur to Egypt do not travel regularly every year, but once every 2 or 3 years; such a caravan comprises from 500 to 2000 camels. It goes about three miles an hour, and rarely travels more than 7 or 8 hours a day.—The blacks stand on the verge of absolute barbarism, even where they are united into states. Their wants are exceedingly simple, and every article used by them is prepared by themselves; the cloth which surrounds their loins, the hut which protects them from the weather, the bow and arrow necessary for the hunt and self-defence, as well as all their household furniture, are manufactured by themselves; the gold, which they collect from the surface of the earth, is wrought by them into ornaments, and iron into arms. Commerce, however, with Europeans has taught them many wants, and increased their list of necessities; among which may now be reckoned fire-arms, powder, brandy, tobacco, different kinds of cloth, glass beads, coral, &c.; for which they barter slaves, ivory, gold and gums, the staples of Africa. The slave

trade is yet of such importance, that, although most of the European and American nations have agreed to prohibit it, nearly 50,000 Negroes are yearly torn from the interior by the Mussulman, Portuguese, French, American, and even British dealers. Formerly, 105,000 slaves were annually introduced into the West Indies, besides those who were transported into Asia by the Kermanians, and by the North Americans into the southern states of the Union. The exports of ivory, gold dust and gums are also important; those of ostrich feathers, tiger skins, hides, and other natural productions, are of less consequence. Of all the states of Africa, Barbary alone uses coin; in the rest, not frequented by Europeans, money rarely serves as the medium of exchange; in some, on the western coast, cowries are made to answer the purposes of coin; in others, pieces of salt.—The tropic of Cancer and the equator divide Africa into three principal parts:—1. Northern Africa, comprising Egypt, the piratical states of Tripoli (including the coast of Barca), Tunis and Algiers, the empire of Morocco, Fezzan, and the northern part of Soodan or the Sahara, with the Azores, Canary and Madeira islands. 2. Central Africa, comprising, on the eastern coast, Nubia, Tigre, Amhara, Efat, Adel, Ajan, the southern part of Soodan, with Darfur and the countries of the Gallas; and, on the western coasts, Benin, Owhere, Senegambia and Guinea, besides the cape Verd islands, those near Guinea, the 16 Bissao islands, Socotora, &c. 3. Southern Africa, with all the south-east and south-western coasts and interior, the cape of Good Hope and the island of Madagascar, the Comoro islands, with those of Mascarenhas, Amirante, Tristan d'Acunha, St. Helena and Ascension.—In a historical view, also, Africa is deserving of the minutest investigation, as one of the richest archives of former times and the ancient world. It guards, couched in mysterious characters, innumerable annals of the history of man's progress from the earliest times down to the overthrow of the Roman empire in the East. In A. the enterprising European is discovering new sources of industry and commerce. Great Britain has already flourishing colonies established on its coasts; on which the Portuguese colonies, planted four centuries since, laid the foundation of the colonial system of Europe. It is with reason, therefore, that Africa has, in our days, engaged the attention of geographers, as in the period of Herodotus, and

400 years since, in the time of Henry the Navigator. The French expedition to Egypt (q. v.) first opened this country to modern investigation, and roused even the Turks from their sluggish apathy. British perseverance has created for the nations of the Cape new sources of prosperity, and established a colony there, to receive the superfluity of British population; while the colony previously established (1793) at Sierra Leone has been laboring, not without success, for the civilization of the Negroes. At the same time, adventurous travellers, British, German, French, Italian and American, have penetrated into A. from all sides. But we must regard as erroneous the idea that the eastern coasts of A. were visited, in the remotest antiquity, by the Jewish and Tyrian merchants, who, according to Hebrew accounts, sailed to Tarshish and Ophir, said to be situated on those coasts, and carried thence great riches to kings David and Solomon. For a history of the voyages of discovery in Africa, since the time when the Phœnicians, under Nechos, king of Egypt, sailed from the Red sea, round Africa, and back through the pillars of Hercules (600 years before the Christian era), down to the enterprises of the latest times, we refer the reader to the complete history of voyages and discoveries in Africa, from the most distant times down to the present, by Dr. Leyden and Mr. Hugh Murray, Edinburgh, 1817; translated from the English into French, with additions, Paris, 1821, 4 vols.; and the *N. Geogr. Ephem.*, 1824. Among the most important travels of our own time are the mission of Bowdich, an Englishman, to Ashantee, in 1818, which has made us acquainted with a powerful and warlike nation near the western coast; and the journeys undertaken by Burckhardt to Nubia, which have made known to us the active commerce of the Nubian nations. It is principally by means of these, that the "African Association," incorporated in 1787, in London, as well as the British consulate (e. g. Salt, in Egypt), and the British Bible and Missionary societies, have been enabled to raise the veil which hung over this continent. The bold Mungo Park, Hornemann and Röntgen, of Neuwerk, had previously penetrated into the interior. The last was murdered on the road to Timbuctoo, not far from Mogadore. Besides those mentioned above, we ought to cite Leod's Voyage to Africa, London, 1821, because it gives a more minute description of the people

of Dahomy (q. v.), who inhabit the most fertile part of Guinea, with which we were only superficially acquainted from the accounts of Norris, and Capt. Lyon's Narrative of Travels, 1818—20, in Northern Africa, London, 1821, who, starting from Tripoli, visited the caves of the tribes of mt. Garean, and penetrated, by way of Mourzouk, to Tegerhy, (24° 4' N. lat.), the most southern city of the kingdom of Fezzan, in company with his friend Ritchie, who died, however, in Mourzouk, Nov. 20, 1819. In September, 1821, three Englishmen, doctor Oudney, major Denham and captain Clapperton, proceeded on a similar expedition to Tripoli, in order to travel to Bornou, by way of Mourzouk, and explore the course of the Niger. Oudney died at Murmur, Jan. 12, 1824, in consequence of catching a cold when the frost was so violent on a plain, between hills of sand, that water froze in the leather bags. His fellow-traveller, Clapperton, pursued his journey to Cano, the present capital of Houssa, and reached Soccatoo, the residence of the governor of Soodan. They discovered the fresh-water lake Tschad, into which two large rivers empty, the Shary from the south, the Yaou from the west. (See *Narrative of Travels and Discoveries in Northern and Central Africa, by Maj. Denham, Capt. Clapperton and the late Dr. Oudney, in the years 1822, 23, 24, London, 1826.*) In 1824, major Gordon Laing undertook to travel from Tripoli to Timbuctoo. Clapperton commenced, in 1825, a new expedition into the interior from Benin, by way of Soccatoo, to the Tschad, in order to penetrate into Abyssinia through Timbuctoo, whence Laing was to start for Benin. He was accompanied by doctor Dickson, the naturalist, capt. Robert Pearce and doctor Morrison. Clapperton died of a dysentery at Soccatoo, April 13, 1827, and Laing is now known to have been killed near Timbuctoo in the latter part of the year 1826. Clapperton's journal of his second expedition has been published at London, 1829, together with the journal of Richard Lander, from Cano to the sea-coast. Among the German and French adventurers, who have explored the interior of Africa, starting from Egypt, are Minutoli (q. v.), Cailaud, and, since the year 1822, Ed. Ruppel. Ruppel explored, in 1825, the great Oasis in the west of Nubia, and the unknown country of Kordofan, and undertook, in 1826, a journey to the Red sea. He has imparted to the public much that is new respecting Egypt and Ethiopia,

and the antiquities of the East, in von Zach's *Corresp. Astron.* The French Gasp. Mollien, who published a *Voyage dans l'Intérieur de l'Afrique aux Sources du Sénégal et de la Gambie*, Paris, 1820, 2 vols., set out from St. Louis, and reached the sources of the Senegal, the Gambia and the Rio Grande, at no great distance from each other, lon. $7^{\circ} 15' W.$, and lat. $10^{\circ} 30' N.$, in the neighborhood of Teembo. But he was unable to reach the sources of the Niger, and also wanted instruments to give accuracy to his observations. In the connexion of those two streams by the Nerico, he has shown the route on which the caravans from the kingdoms of Oubi and Foutadiallon, in the interior, might proceed along the Senegal to fort St. Louis. Much light has been shed over the south of Africa by Burchel, an Englishman, who travelled five years in the interior, setting out from the Cape. Before him, the Cape itself had been explored, by Barrow, in 1797, and by John Campbell, agent of the London Missionary Society, as far as Latakoo, a settlement of the Bushwana tribe, 900 miles north of Cape Town. In 1818, Campbell undertook a second journey, in the same direction, arrived at Latakoo in 1819, and reached, in April, 1820, Old Latakoo, containing 8000 inhabitants. He here found, in a northerly direction, several populous cities, situated in a fertile and cultivated country, where he discovered the tribe of the red Caffres, and reached Kurerchanee (almost $24^{\circ} S.$ lat.), a city of the Marootzees, near the eastern coast, said to contain 16,000 inhabitants. Auguste Caillé, a French traveller, has at length reached Timbuctoo. (q. v.) He set out from Kakondy April 19, 1827, and arrived at Timbuctoo April 19, 1828. The committee of the geographical society at Paris, appointed to examine him, report that his journey is connected, in a way very advantageous for science, with those of Park, Laing and others, who have explored A. (See *Caillé*.) Thus the courage of European discoverers has penetrated Africa from four sides, the Cape, Senegal, Tripoli and Egypt. North Africa has now been intersected and scientifically explored, by five or six important expeditions. But there are yet wanting communication and connexion between the 20 or 25 principal lines, which mark the routes of the discoverers. The space already explored by them in Africa is estimated at 225,000 square miles. We have, therefore, accounts more or less authentic respecting the 50th part of this

vast continent. (See Jomard., *Sur les Découvertes dans l'Intérieur de l'Afrique*, *Rev. Enc.*, 1824, Dec.) Ukert has compiled the latest geography of the northern half of Africa (Weimar, 1824, the 21st vol. of the *Vollst. Handb. der neuesten Erdbeschreib.*) A new and very complete lithographic map of Africa was published in 1828, by Cotta, at Munich, containing all the late additions to African geography, price six guilders. For information respecting the American colony Liberia, and the other important settlements on this continent, see the separate articles.

AFRICAN ASSOCIATION; a society of 95 members, who held their first meeting June 9, 1788, in London. Its object is to explore the interior of Africa, to promote the civilization of the blacks, and the commercial interests of Great Britain. The soul of this association was the famous sir Joseph Banks. (See *Banks*.) Ledyard, the American traveller, and Lucas, were the first persons sent out to explore the interior of Africa, at the expense of this association, which subsequently despatched, at different times and on different routes, major Houghton, Mungo Park, and two Germans, Hornemann and Burckhardt. (q. v.) See the results of these enterprises in the *Proceedings of the Association for promoting the Discovery of Africa*, 1790. The principal point settled was the eastern course of the Niger, agreeing with the account of Herodotus, and the country was explored as far as Darfur. (q. v.)

AFRICAN COMPANY; a society of merchants established by Charles II., for the purpose of trading to Africa. Similar companies had been formed during the reigns of Elizabeth, of James I, and of Charles I, but did not continue long. Another was incorporated in 1662, with a charter from Charles II, securing to the English a monopoly of all commerce from cape Blanco to the cape of Good Hope. The last incorporation of this kind was formed in 1672, and conducted for some time a flourishing trade. At the time of the English revolution, the trade to Africa was thrown open. All private traders, however, were obliged to pay 10 per cent. towards maintaining the forts and factories already erected. In 1750, the original company being completely bankrupt, its forts and various establishments on the African coast were vested, by 23 Geo. II, in the present company of merchants trading to Africa. This company cannot trade as a corporate body, nor possess transferable stock. Its

duties are to maintain the forts and garrisons in good order; and any British subject may be admitted into it on the payment of 40 shillings.

AFRICAN INSTITUTION; a society in England, the first meeting of which was held April 14, 1807. Its principal object is the abolition of the slave trade, and the promotion of civilization among the African nations. With this view, it labors to collect the most complete accounts of the agricultural and commercial relations of the country, and of the physical, intellectual and political condition of its inhabitants; to form connexions with them; to introduce valuable plants; to found schools; to make the natives acquainted with the useful arts of Europe, &c. The institution is governed by a president, vice-president and 36 directors. But its funds have not been sufficient to accomplish much. It has, however, supported teachers in Sierra Leone, and exerted itself with zeal for the abolition of the slave trade, as may be seen from its excellent annual reports.

AFT; a sea term, signifying near the stern of the ship.

AGA; among the Turks, the commander of a body of infantry; likewise a title of politeness. The A. of the janizaries, their commander-in-chief, had nearly as much authority as the grand vizier, and was the only person allowed to appear before the grand seignior, without his arms crossed on his breast, in the attitude of a slave. The word *aga* is often used, as a complimentary title in Turkey, much in the same way as *captain* is in some parts of the United States. The chief officers under the khan of Tartary are also called A. The A. of Algiers is the president of the divan, or senate.

AGADES (*Audagost* of Edrissi); a flourishing town of Central Africa. It appears to be the centre of the trade of the eastern part of the interior of Africa. It is 47 days' journey from Mourzouk, and many of the merchants from that quarter stop at A. to change their commodities for those of Soudan, and the countries to the south of the Niger. Hornemann reports it to be the capital of an independent kingdom called *Asben*.

AGALMATOLITE; a soft mineral substance, capable of being cut with the knife, of a dull greenish, reddish or yellowish-white color, and consisting of silice and alumine, with a little potash. It is chiefly found in China, where it is wrought into figures and various ornaments. It has lately been recommended

as a substitute for the bricks made of Cornish porcelain clay, to measure high heats in the pyrometer of Wedgewood; it being capable of standing a great heat, and of contracting its dimensions very considerably and equably.

AGAMEMNON; king of Mycene and Argos, son of Plisthenes, nephew of Atreus, and brother of Menelaus and Anaxibia. His mother is said by some to have been Eriphyle, by others, Aërope. Common opinion, and the authority of Homer, make him the son of Atreus. At least, the two brothers are denominated *Atrides* by Homer. From Tantalus, the founder of the race, down to Agamemnon and his children, the members of this family of heroes were constantly persecuted by fate. (See *Tantalus*, *Pelops*, *Atreus* and *Thyestes*.) The children of A. and Clytemnestra were Iphigenia, Electra, Chrysothemis and Orestes. When the Trojan war broke out, A. was appointed leader of the united army of Greeks, and manned alone 100 ships. The army assembled in the bay of Aulis in Bœotia. Here they were long detained by a calm, occasioned by the anger of Diana (see *Iphigenia*), but finally arrived before Troy. During the protracted siege of the city, A. appears superior to the other chiefs in battle and in councils, and maintains, under all circumstances, the dignity of a commander. His quarrel with Achilles is described under *Achilles*. Returning home, after a 10 years' siege, he was treacherously assassinated. Ægisthus, whom, at his departure, he had pardoned for the murder of Atreus, and intrusted with the care of his wife and children, joined with Clytemnestra, and slew him at a banquet, together with Cassandra, the daughter of Priam (who had fallen to his share in the division of the captives), and their children. Thus says Homer; others say that Clytemnestra murdered him in the bath, having entangled him in a tunic. The cause of his murder is alleged by some to have been her adulterous connexion with Ægisthus; by others, her jealousy of Cassandra.

AGAMIC PLANTS. (See *Cryptogamic*.)

AGANIPPE, likewise called *Hippocrene*; a fountain which, according to the Grecian poets, sprung out of the summit of Helicon, the seat of the muses, when struck by the hoof of Pegasus. This fountain had the property of inspiring with poetic fire whoever drank of it. Solinus distinguishes A. from Hippocrene as a different fountain.

AGAPE, in ecclesiastical history (from

ἀγάπη, *Gr.* love); the love-feast, or feast of charity, in use among the primitive Christians, when a liberal contribution was made by the rich to feed the poor. St. Chrysostom gives the following account of this feast, which he derives from the apostolical practice. He says, "The first Christians had all things in common, as we read in the Acts of the Apostles; but when that equality of possession ceased, as it did even in the apostles' time, the agape or love-feast was substituted in the room of it. Upon certain days, after partaking of the Lord's supper, they met at a common feast, the rich bringing provisions, and the poor, who had nothing, being invited." These love-feasts, during the three first centuries, were held in the churches without scandal, but in after times the heathen began to tax them with impurity. This gave occasion to a reformation. The kiss of charity, with which the ceremony used to end, was no longer given between different sexes, and it was expressly forbidden to have any beds or couches for the convenience of those who wished to eat at their ease. The abuses, however, became so notorious, that the holding of the A., in churches at least, was solemnly condemned at the council of Carthage, in the year 397. Some modern sects, as the Wesleyans, Sandemanians, Moravians, &c. have attempted to revive this feast.

AGAR; Abraham's concubine. (See *Har- gar*.)

AGAR, Jean Antoine Michel, count of Mosbourg, born in the department du Lot, was an advocate and professor at Cahors. He accompanied Murat to Tuscany, which he organized before it was given up to the king of Etruria, and was engaged in the proceedings of the *consulta* at Lyons and Milan. Murat made him his prime minister in the grand duchy of Berg, where he gained universal respect. On the occasion of his marriage with one of the nieces of Murat, he received from him the county of Mosbourg. The Prussian government at first sequestered it, but restored it in 1816. During Murat's government in Naples, he was his minister of finance, and drew up the constitution ratified by him, which was proclaimed the very day that Murat was forced to fly from Naples.

AGARIC, AGARICUM, AGARICUS; the mushroom, a genus of the order of *fungi*, belonging to the class of *cryptogamia*, Linnæus. The generic character is a *pileus*, or cap, with gills underneath, which differ in substance from the rest of the plant,

being composed of two laminæ; the seeds are in the gills.—Some have enumerated no less than 634 species of this fungus, others 400. Of all these, only one species, *A. campestris*, common mushroom, or champignon, has been selected for cultivation in England. It is considered the most savory of the genus, and is much in request for the table. It is eaten fresh, either stewed or boiled and preserved, either as a pickle or in powder; and it furnishes the sauce called *ketchup*. The field plants are better for eating, inasmuch as they are more tender than those raised on artificial beds. The wild mushrooms are found in parks and pastures, where the turf has not been ploughed up for many years, and the best time for gathering them is August and September.

AGATE; a fossil compounded of various substances, as chalcedony, cornelian, jasper, hornstone, quartz, &c. These different fossils do not all occur in every A., commonly only two or three of them. There are different kinds of A., as the fortification, the landscape, the ribbon, the moss, the tube, the clouded, the zoned, the star, the fragment, the punctuated, the petrification, the coral and the jasper A. No country affords finer A., or in greater abundance, than Germany. It is found in great quantities at Oberstein, in that country. It is also found in France, England, Scotland, Ireland, Sicily, Siberia, and very beautiful in the East Indies, where, however, it is confounded with onyx. It is cut into vases, mortars, snuff-boxes, cups, rings, seals, handles for knives and forks, hilts for swords, beads, smelling-boxes, &c. It was highly valued by the ancients, who executed many fine works with it. The collections of Brunswick and Dresden are remarkable for beautiful specimens of this kind. Great medicinal virtues were formerly attributed to the agate, but it is now rejected from medical practice. Agate sometimes contains figures bearing a striking resemblance to some regularly-shaped object, either natural or artificial, e. g. a man, a circle, an animal, &c. This kind is the most prized. These figures may, however, be produced by artificially staining the stone, so that stories of wonderful figures found on agates are not to be implicitly believed.

AGATHO; an Athenian, distinguished both as a tragic and a comic writer. We know only the names of some of his pieces. He is said to have been too partial to antithesis. As a tragic poet, he was once crowned at the Olympic games.

He was a friend of Socrates and Euripides, and was the first who wrote on fictitious subjects. He was distinguished also for musical talent.

AGATHOCLES was one of the boldest adventurers of antiquity. His history is principally drawn from Diodorus Siculus, books 19 and 20, and fragments of book 21, and from Justin, books 22 and 23. They derived their accounts from different sources, and differ, therefore, especially in the history of his youth. Agathocles was the son of Carcinus, who, having been expelled from Rhegium, resided at Thermæ, in Sicily. On account of a mysterious oracle, he was exposed in his infancy, but was secretly brought up by his mother. At the age of 7 years, the boy was again received by his repentant father, and sent to Syracuse to learn the trade of a potter, where he continued to reside, being admitted by Timoleon into the number of the citizens. He was drawn from obscurity by Damas, a noble Syracusan, to whom his beauty recommended him, and was soon placed at the head of an army sent against Agrigentum. By a marriage with the widow of Damas, he became one of the most wealthy men of Syracuse. Under the dominion of Sosistratus, he was obliged to fly to Tarentum, but returned after the death of the latter, usurped the sovereignty, in which he established himself by the murder of several thousands of the principal inhabitants, and conquered the greater part of Sicily, 317 B. C. He maintained his power 28 years, till 289 B. C. To strengthen his authority in his native country, and to give employment to the people, he endeavored, like Dionysius, to drive the Carthaginians from Sicily. Having been defeated by them, and besieged in Syracuse, he boldly resolved to pass over to Africa with a portion of his army. Here he fought for 4 years, till 307, generally with success. Disturbances in Sicily compelled him to leave his army twice, and, at his second return into Africa, he found it in rebellion against his son Archagathus. He appeased the commotion by promising the troops the booty they should win; but, being defeated, he did not hesitate to give up his own sons to the vengeance of the exasperated warriors, and expose these latter, without a leader, to the enemy. His sons were murdered; the army surrendered to the Carthaginians. He himself restored quiet to Sicily, and concluded a peace, 306 B. C., which secured to both parties their former possessions. He then enga-

ged in several hostile expeditions to Italy, where he vanquished the Brutii, and sacked Crotona. His latter days were saddened by domestic strife. His intention was, that his youngest son, Agathocles, should inherit the throne. This stimulated his grandson, Archagathus, to rebellion. He murdered the intended heir, and persuaded Mænon, a favorite of the king, to poison him. This was done by means of a feather, with which the king cleaned his teeth after a meal. His mouth, and soon his whole body, became a mass of corruption. Before he was entirely dead, he was thrown upon a funeral pile. According to some authors, he died at the age of 72 years; according to others, at that of 95. Before his death, his wife, Texena, and 2 sons, were sent to Egypt. His son-in-law, Pyrrhus, king of Epirus, inherited his influence in Sicily and southern Italy. Agathocles possessed the talents of a general and a sovereign. He was proud of his ignoble descent. His cruelty, luxury and insatiable ambition were the occasion of his ruin.

AGATHODÆMON (*Greek*); a beneficent spirit, opposed to *cacodæmon*, an evil spirit. Ancient writers give this name to a kind of serpent revered by the Egyptians.

AGAVE. (*See Aloe, American.*)

AGE, in law; the time when the law allows persons to do acts, which, for want of years, they were prohibited from doing before. Some of the rules of the common law of England, in regard to age, are as follows: 14 years in a man, and 12 in a woman, is the age of discretion for consenting to marriage. At 14, a minor may choose a guardian. Twenty-one years is the full age. A person under the age of 21 may make a purchase, but may disagree to it, if he chooses, on reaching his full age. No one can be chosen a member of parliament under the age of 21 years, nor ordained a priest until the age of 24 years, nor made a bishop before he is 30 years old. In marriages, when either of the parties is under 21 years, and is not a widower or widow, the consent of the parents or guardians of such minor is required, if the marriage is in pursuance of a license; or, if it be in pursuance of bans published, the parent or guardian may, at the time of the publication of the bans, declare in church his dissent to such marriage, and prevent its taking effect. The age for serving in the militia is from 16 to 45 years. *Coke's 1 Inst. 78.*—The following are some of the provisions of the *Code Napoléon* with regard to age: 40

years are required for a member of the legislature, 30 for a judge, juror or elector, and 22 to discharge any office in the courts. To contract marriage, it requires that the man should be at least 18 years old, and the woman 15. But marriage is not valid without the consent of parents (or, in case of their death, of the other relations in the ascending line, who take their place), until the man is 25, and the woman 21 years old, and even then it is necessary to give the parents or other relations notice. A person adopting must be as much as 50 years old, and at least 15 years older than the person adopted, unless the latter has saved the life of the former, in which case it is only necessary that the person adopting should be of full age, and older than the person adopted. (See *Adoption*.) Full age is fixed at 21 years for both sexes. At 16 years, a minor can make a will. Witnesses, in a strict sense, must be of full age. Under 15 years of age, a person can only affirm, without an oath. An innocent debtor of 70 years and upwards cannot be deprived of his personal liberty. If a criminal is under 16 years, and the jury find that he has acted without a proper sense of his guilt, he is acquitted, except that he may be confined, for a limited time, in a house of correction. These are the provisions of the French code.—In the U. S. of America, the rules of the English law respecting age have, in most cases, been adopted where applicable. To be chosen president of the U. S., a man must be at least 35 years old, a senator must be 30, and a representative 25 years old. Every free white male citizen, of 18 years, is obliged to serve in the militia till he reaches the age of 45 years, unless exempted for some special reason. (See age in *Criminal Law*.)

AGE. We find the ages of the world mentioned by the earliest of the Greek poets. They compared the existence of mankind to the life of an individual, and the earliest period of the world to the tranquillity and happiness of youth. Hesiod speaks of five distinct ages: 1. The *golden* or *Saturnian* age, when Saturn ruled the earth. The people were free from the restraint of laws; they had neither ships nor weapons, wars nor soldiers; the fertile fields needed no cultivation, and perpetual spring blessed the earth. 2. The *silver* age, which he describes as licentious and wicked. 3. The *brazen* age; violent, savage and warlike. 4. The *heroic* age, which seemed an approximation to a better state of things. 5. The *iron* age, when justice and honor had left the earth. The poet

supposed this to be the age in which he himself lived. Ovid retained, in his *Metamorphoses*, the division of Hesiod, with this difference—he omitted the heroic age, and placed the four ages before the flood of Deucalion.—This idea, first used as a poetical embellishment, was also introduced into philosophy. The ages were looked upon as a part of the great year of the world, the revolution of which was to bring the heavenly bodies to their first position. Mythology was thus brought into the closest connexion with astronomy. The first, or golden age, was under the dominion of Saturn; the second, of Jupiter; the third, of Neptune; and the fourth, of Pluto, or, as some say, of Apollo. The time of the completion of the great year of the world, or of the heavens, was fixed by some at 3000 solar years; by others, at the mysterious number 7777 solar years. Cicero estimated it at 12,954; Heraclitus, at 18,000; and Orpheus, at 12 months, consisting each of 100,000 years. The Sibylline books divided it into ten secular months, or the four seasons of the year. Spring was the golden age; Summer, the silver; Autumn, the brazen, which was interrupted by Deucalion's flood; and Winter, the iron age; and then the cycle began with Spring again.—The idea of ages of the world is so deeply fixed in the nature of man, that it is interwoven with the religious sentiments of almost every nation on the globe. We find examples of it in the millennial reign of the Apocalypse, and in the Yugs of the East Indians. The idea of four ages of the world prevailed among the Brahmins. The first, a kind of golden age, lasted, according to their tradition, 1,728,000 years; the men of this period lived 400 years, and were all giants; in this period, the god Brahma was born. In the second period, which lasted 1,296,000 years, their rajahs were born; men lived only 300 years, and vice began to creep into the world. During the third age, which lasted 8,064,000 years, men lived only 200 years, owing to the increase of vice. Of the last age, in which we now live, 4,027,213 years are already gone, and the life of man is sunk to one fourth of its original duration.

AGE. For the different ages of life, see *Life*; see also *Longevity*.

AGEDA, synod of; an assembly of Jewish doctors, held A. D. 1650, so denominated from a plain, on which they met, about thirty leagues distant from Buda in Hungary. More than 300 rabbies, and many other Jews, of different nations, attended. The object was, to debate the

question whether the Messiah had appeared. The negative of the question was carried, and it was agreed that his coming was delayed on account of their sins and impenitence. They were of opinion that he would be born of a virgin, would come as a great conqueror, would deliver the Jews from every foreign yoke, and alter nothing in the Mosaic religion. Some ecclesiastics from Rome attended this meeting, but the multitude would not hear them.

AGEMOGLANS, or **AZAMOGLANS**, are children purchased from the Tartars, or raised every third year, by way of tribute, from the Christians tolerated in the Turkish empire. They are circumcised and instructed in the religion of their masters, and in military exercises. From them the janizaries were recruited. (See *Janizaries*.)

AGENDA, among divines, sometimes signifies things which a man is bound to perform, in opposition to *credenda*, which he is bound to believe. It also denotes the service or offices of the church. *A.* is also used to signify church books compiled by public authority, prescribing the order to be observed by the ministers and people, in the ceremonies and devotions of the church; e. g. the ritual, liturgy, missal, &c. In Prussia, the new *A.* (in the last sense), arbitrarily introduced by the king, but rejected by many clergymen and congregations, has occasioned some trouble of late years. Honors and promotions induced many of the clergy to adopt it, but others remained firm in their opposition. The city of Berlin and the famous professor Schleiermacher were very conspicuous in resisting it. In all the churches of which the king was patron, it was introduced.

AGESILAUS; a king of Sparta, 390—306, B. C.; elevated to the throne after the death of his brother Agis, by Lysander, who afterwards formed a conspiracy to depose him; but the plan was discovered and frustrated. Called by the Ionians to their assistance against Artaxerxes, he commenced, after Lysander's death, his glorious career; defeated the Persians, but was compelled to stop in his victorious course, and turn his arms against Thebes, Corinth, &c., which had united against Sparta, and, in a subsequent war with Thebes, to contend against Pelopidas and Epaminondas, the greatest generals of those times. His prudence, however, saved the city, without the hazard of a battle. He delivered it anew, at the age of eighty years, though it was actually in the hands

of Epaminondas. On his return from his last campaign in Egypt, loaded with honors and presents, he was overtaken by a storm on the coast of Libya, and perished, being then in his 84th year. In person, he was small and insignificant. He was, nevertheless, a noble prince, and almost adored by his soldiers, though he sometimes violated the virtue of justice, in cases in which he could be useful to his country or friends.

AGGREGATION, in physics; a species of union, whereby several things, which have no natural dependence or connexion with one another, are collected together, so as, in some sense, to constitute one. Thus, a heap of sand, or a mass of ruins, are bodies by aggregation.

AGHRIM, or **AUGHRIM**; a village in the county of Galway, in Ireland, memorable for a decisive battle fought in the neighborhood, July 12, 1691, between the forces of William III., amounting to 20,000 men, commanded by general Ginckel, and those of James II., amounting to 28,000 men, commanded by the French general St. Ruth. The forces of William were victorious.

AGINCOURT, or **AZINCOURT**; a village in the district Saint-Pol, in the department Pas de Calais, famous for the battle of Oct. 25, 1415, between the French and English. Henry V., king of England, eager to conquer France, landed at Harfleur, took the place by storm, and wished to march through Picardy to Calais, in order to fix his winter-quarters in its neighborhood. With a powerful force, the dauphin advanced against him. The numerical superiority of the French was great, and the confidence of the leader and the nobles such, that they refused the proffered aid of the duke of Burgundy and the city of Paris. Henry V. retreated to the Somme. The French followed to harass his retreat, and to defend the passage from Abbeville to St. Quentin, which he gained only through the inattention of the enemy. The English, however, being destitute of every thing, and reduced by sickness, Henry asked for peace on disadvantageous terms. The French refused his proposals, and succeeded in throwing themselves between Calais and the English. These latter consisted of 2000 men at arms and 12,000 archers, and were ranged in order of battle between two hills, with the archers on the wings. Stakes, of which every man carried one, were fixed in front of them. The French, commanded by the constable d'Albret, numbered 100,000 troops,

of whom 8000 were men at arms. They arranged themselves in two divisions, with the men at arms, of whom 2000 were mounted, in front. The English first put themselves in motion. The French horse instantly hastened to meet them, but were received with such a shower of arrows by the archers, that they fell back on the first division, and threw it into confusion. The light-armed archers seized their clubs and battle-axes, and broke into the ranks of the knights on foot, who could not move on account of their heavy coats of mail, and the closeness of their array. The English horse flew to assist the archers; the first French division retreated; the second could not sustain the charge of the victors; and the whole French army was soon entirely scattered. The victory was complete. Henry thought that the French would rally and renew the battle; and, being alarmed also by the report, that a party of peasants, in arms, were plundering his baggage, he ordered all the prisoners to be massacred. The command was already executed, when he discovered the groundlessness of his fear. The victorious army, however, in the pursuit of the flying enemy, took 14,000 prisoners more. 10,000 Frenchmen lay dead on the battle-field. Among them was the constable, with six dukes and princes. Five princes, among whom were the dukes of Orleans and Bourbon, were taken prisoners. The English lost 1600 men killed; among them the duke of York, Henry's uncle, whom the duke d'Alençon slew at his side, while pressing towards the king. He had already dashed the crown from Henry's head, and lifted his hand for a more effectual blow, when the king's attendants surrounded him, and he fell covered with wounds. After the battle, the English continued their march to Calais, and thence sailed for England, to assemble an army for a new invasion.

AGINCOURT. (See *Seroux d'Agincourt*.)

AGIO is the difference in value between bank money and coin or other currency. The term is in most frequent use in Holland and Venice. It is, however, used at Hamburg and other places in Germany. It is synonymous with *premium*, when the bank money is worth more than the same nominal amount of the current coin, and with *discount*, when its value is less. The agio at the bank of Amsterdam was from three to four per cent. before the French invasion of Holland in 1795; that of Venice was formally fixed at 20 per cent.; the bank money of each of those places

being so much more valuable than the current coin. This difference in value arises often from the circumstance, that the current coin is depreciated by wearing and clipping. The agio of the bank-money of Hamburg was formerly 14 per cent. on this account. *Agio* is sometimes used to signify the premium or discount on bills of exchange.

AGIS IV, king of Lacedæmon, and colleague of Leonidas in the government of Sparta, was the son of Eudamidas, and a lineal descendant of Agesilaus. Historians affirm that he was, in youth, of singular promise, and that, in maturer age, he prepared, by the introduction of new laws, to correct the abuses which had crept into the Spartan government. This he found a measure of peculiar difficulty, but he was supported by his maternal uncle Agesilaus, though with a selfish design, and likewise by many of the citizens. They obtained a law for the equalization of property, and A. himself shared a valuable estate with the community. In consequence of his exertions, Leonidas was deposed and banished. The people, however, soon became dissatisfied with the projected reform, and while A. was leading an army to aid the Achæans, the indiscretion of his uncle Agesilaus, during his absence, occasioned a conspiracy for the restoration of Leonidas. The conspirators, having succeeded, forced A. to take refuge in a temple, which he never left but for the purpose of bathing. On one of these occasions, he was surprised and dragged to prison. The *ephori* having then questioned him respecting his views in altering the laws, he answered that it was for the purpose of restoring those of Lycurgus. Sentence of death was passed upon him; but the ministers of the law, until forced by Demochares, refused to conduct him to a chamber reserved for the execution of criminals. He was there strangled, and he submitted to his sentence with heroic firmness. The grandmother and mother of A. shared the same fate.

AGITATORS, in English history, were persons elected by the army, in 1647, to watch over its interests, and to control the parliament, at that time sitting at Westminster. Two private men, or inferior officers, were appointed from each troop or company, and this body, when collected, was presumed to equal the house of commons; while the peers were represented by a council of officers of rank. Cromwell at first made use of them, but afterwards issued orders for

suppressing them. These associations, so dangerous to the constitution, gave rise to the act which forbids any member to enter either house of parliament armed—a regulation enforced with jealousy to this day. *Hume's Hist.* chap. lix.

AGLATA; according to Hesiod, one of the 3 graces, daughter of Jupiter and Eurynome; according to others, the mother of the graces, and wife of Vulcan. (See *Graces*.)

AGLAR. (See *Aquileia*.)

AGNANO; a lake lying west of Naples. In its neighborhood are the famous grotto del Cane and the baths of St. Januarius. The former is noted for the suffocating vapors of carbonic acid gas, which ascend from its bottom. The baths are beneficial in cases of gout, syphilis, &c. Their reputation has been increased, of late years, by the way in which they have been applied by Mr. von Gimbernat to restore the weakened electricity of the sick.

AGNATES (*agnati*), in the civil law; relations on the male side, in opposition to *cognates*, relations on the female side. In the Scotch law, A. are understood to be those persons nearest related by the father, though females intervene.

AGNES, St.; a saint who suffered martyrdom at the time of the persecution of the Christians, in the reign of the emperor Diocletian. Her festival is celebrated on the 29th of January. Domenichino has painted her at the moment of her execution. Two churches of this saint, one in Rome, the other near the city, are remarkable buildings. In front of the latter, the feast of the saint is celebrated with much observance. Many cattle, horses, &c. are brought there and blessed by the priest. This ceremony is thought to protect them against sickness during the following year.

AGNES, St.; one of the Cassiterides, or Scilly isles. (q. v.) This island is commonly called *Light-house island*, because it has a light-house. W. lon. 6° 20'; N. lat. 49° 53'.

AGNES SOREL, the mistress of Charles VII, king of France, was born 1409, of a noble family, and was one of the most beautiful and accomplished women of her time. As lady of honor to Isabella of Lorraine, duchess of Anjou, she accompanied that princess, in 1431, to the French court. Her beauty attracted the favor of the young king, and he appointed her one of the queen's ladies of honor. After some resistance, A. yielded to the passion of the monarch. The English then had

possession of half of France; and Charles VII, though naturally bold, became depressed and inactive under the weight of his misfortunes. A. alone was able to rouse him from his apathy, and make him feel what he owed to himself and his people. The eventual success of his arms increased his passion for his mistress, who did not, however, abuse her power over him. She retired, in 1445, to Loches, where Charles had built her a castle. He afterwards conferred on her the county of Penthievre, in Bretagne, the seigniories of Roche-Servière and Issoudun, in Berri, and the château de Beauté, on the bank of the Marne; whence she received the name of *dame de beauté*. She had lived here about 5 years, frequently visited by the king, when the queen invited her again to court, in 1449. A. consented, and, to be nearer the king, proceeded to the castle of Masnal-la-Belle, where she died, in 1450, so suddenly as to afford ground for the suspicion of poison. She was buried in the collegiate church of Loches, where her monument was to be seen in 1792. She left the king three daughters, who were acknowledged by him, and portioned at the expense of the crown.

AGNESI, Maria Gaetana, an ornament of her sex, was born at Milan, in 1718. Her father was don Pedro di Agnesi. In her 9th year, she spoke Latin with correctness, and also delivered an oration in this language, in which she maintained that the study of the ancient languages was proper for females. This oration was printed at Milan, in 1727. In her 11th year, she is said to have spoken Greek as fluently as her mother tongue. She now proceeded to perfect herself in the oriental languages, so that she was usually called a *living polyglot*. She next studied geometry and speculative philosophy. Her father fostered her love of learning by assembling at his house, at certain times, learned societies, in which Maria proposed and defended philosophical theses. The president de Brosses asserts, in his Letters on Italy, that nothing can be imagined more delightful than these conversations with one of the prettiest and most learned females of the time. In her 20th year, she appears to have become tired of these erudite disputations, the substance of which was afterwards published by her father. They fill a quarto volume. Mathematics now attracted her attention, and she composed a treatise on conic sections; besides which, in her 30th year, she published a

treatise on the rudiments of analysis, which has been considered as the best introduction to Euler's works, and was translated into English, in 1801, by the reverend John Colson, professor of mathematics at Cambridge. It gained her so much reputation, that she was appointed, in her 32d year, professor of mathematics at the university of Bologna. Her deep study of this science seems to have cast a gloom over her spirits. She secluded herself altogether from society, retired to the strict order of blue nuns, and died in her 81st year, 1799. Her sister, Maria Theresa, set to music several cantatas, and the 3 operas, *Sophonisba*, *Ciro in Armenia*, and *Nitocri*, with applause.

AGNOËTÈ. (See *Monophysites*.)

AGNOMEN, in ancient Rome; a name or epithet given to a person by way of praise or dispraise, or from some remarkable event in his history. Such names remained peculiar to the person, and not descendible to his issue. Thus one of the Scipios obtained the A. of *Africanus*, and the other of *Asiaticus*, from their achievements in Asia and Africa. The Romans often had three names besides the A.; the *prenomén*, corresponding to our Christian name, distinguishing the individual from others of the same family; the second, or *nomen*, marked his clan; and the third, or *cognomen*, expressed his family; to these the A., e. g. *Atticus*, *Cunctator*, *Germanicus*, &c. was added.

AGNUS DEI (*Latin*; the Lamb of God).

1. A prayer of the Romish liturgy, beginning with the words *Agnus Dei*, generally sung before the communion, and, according to the regulation of pope Sergius I, in 688, at the close of the mass. 2. A round piece of wax, on which is impressed the figure of the sacred Lamb, with the banner of the cross, or of St. John, with the year and name of the pope. The pope consecrates and distributes a great number of them. It was originally customary, in the churches of Rome, to distribute the remains of the Paschal taper, consecrated on Easter eve, in small pieces, among the people, who burned them at home, as an antidote against all kinds of misfortune. But when the number of candidates became too large to be all satisfied, the above expedient was adopted. A. D. is also the name of that portion of the mass, which is introduced, in Roman Catholic churches, at the distribution of the host.

AGOWS, in geogr.; the inhabitants of a province of Abyssinia. They are, in their

manners, ferocious, and in their religion, superstitious. They are heathens, and adore the spirit residing in the Nile. (See *Abyssinia*.) *Bruce's Trav.* vol. i. 401. vol. iii. 527.

AGRA; a province of Hindostan Proper, situated between 25° and 28° N. lat.; the capital of which, of the same name, is in the possession of the British. Several rajahs, allies of the British, possess the western and north-western district. The part of the province south of the Chumbul is under the dominion of the Mahrattas. No part of Hindostan affords a richer soil; grain of all kinds, sugar, indigo and cotton are yielded with little labor in all the British districts. Formerly the province was also famous for its silks. It furnishes superior horses. It contains 6 millions of inhabitants. A., the city, N. lat. 27° 12', and E. lon. 77° 56', is connected with the whole of the modern history of India. The Mahometans call it *Akbarabad*. It is ornamented with splendid edifices, of which the *Taje Mahal*, or Crown of Edifices, an unrivalled tomb to the memory of the empress of Shah Jehan, who died 1632, is the most famous. This is wholly built of the finest white marble. General lord Lake took A. in 1803, from the Mahrattas. A. is 137 miles from Delhi, and 830 from Calcutta.

AGRARIAN LAWS; laws enacted in ancient Rome for the division of public lands. In the valuable work on Roman history by Mr. Niebuhr, it is satisfactorily shown, that these laws, which have so long been considered in the light of unjust attacks on private property, had for their object only the distribution of lands which were the property of the state, and that the troubles to which they gave rise were occasioned by the opposition of persons who had settled on these lands without having acquired any title to them. These laws of the Romans were so intimately connected with their system of establishing colonies in the different parts of their territories, that, to attain a proper understanding of them, it is necessary to bestow a moment's consideration on that system.—According to Dionysius of Halicarnassus, their plan of sending out colonists, or settlers, began as early as the time of Romulus, who generally placed colonists from the city of Rome on the lands taken in war. The same policy was pursued by the kings who succeeded him; and, when the kings were expelled, it was adopted by the senate and the people, and then by the dictators. There

were several reasons inducing the Roman government to pursue this policy, which was continued for a long period without any intermission; first, to have a check upon the conquered people; secondly, to have a protection against the incursions of an enemy; thirdly, to augment their population; fourthly, to free the city of Rome from an excess of inhabitants; fifthly, to quiet seditions; and, sixthly, to reward their veteran soldiers. These reasons abundantly appear in all the best ancient authorities. In the later periods of the republic, a principal motive for establishing colonies was to have the means of disposing of soldiers, and rewarding them with donations of lands; and such colonies were, on this account, denominated *military colonies*. Now, for whichever of these causes a colony was to be established, it was necessary that some law respecting it should be passed, either by the senate or people; which law, in either case, was called *lex agraria*, an agrarian law, which will now be explained.—An agrarian law contained various provisions; it described the land which was to be divided, and the classes of people among whom, and their numbers, and by whom, and in what manner, and by what bounds, the territory was to be parcelled out. The mode of dividing the lands, as far as we now understand it, was twofold; either a Roman population was distributed over the particular territory, without any formal erection of a colony, or general grants of lands were made to such citizens as were willing to form a colony there. The lands which were thus distributed were of different descriptions; which we must keep in mind, in order to have a just conception of the operation of the agrarian laws. They were either lands taken from an enemy, and not actually treated by the government as public property; or lands which were regarded and occupied by the Roman people as public property; or public lands which had been artfully and clandestinely taken possession of by rich and powerful individuals; or, lastly, lands which were bought with money from the public treasury, for the purpose of being distributed. Now, all such agrarian laws as comprehended either lands of the enemy, or those which were treated and occupied as public property, or those which had been bought with the public money, were carried into effect without any public commotions; but those which operated to disturb the opulent and powerful citizens in the possession of the

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lands which they unjustly occupied, and to place colonists (or settlers) on them, were never promulgated without creating great disturbances. The first law of this kind was proposed by Spurius Cassius; and the same measure was afterwards attempted by the tribunes of the people almost every year, but was as constantly defeated by various artifices of the nobles; it was, however, at length passed. It appears, both from Dionysius and Varro (*de Re Rustica*, lib. 1), that, at first, Romulus allotted two *jugera* (about $1\frac{1}{2}$ acre) of the public lands to each man; then Numa divided the lands which Romulus had taken in war, and also a portion of the other public lands; afterwards Tullus divided those lands which Romulus and Numa had appropriated to the private expenses of the regal establishment; then Servius distributed among those who had recently become citizens certain lands which had been taken from the Veientes, the Cærites and Tarquinii; and, upon the expulsion of the kings, it appears that the lands of Tarquin the Proud, with the exception of the Campus Martius, were, by a decree of the senate, granted to the people. After this period, as the republic, by means of its continual wars, received continual accessions of conquered lands, those lands were either occupied by colonists or remained public property, until the period when Spurius Cassius, twenty-four years after the expulsion of the kings, proposed a law (already mentioned), by which one part of the land taken from the Hernici was allotted to the Latins, and the other part to the Roman people; but, as this law comprehended certain lands which he accused private persons of having taken from the public, and as the senate also opposed him, he could not accomplish the passage of it. This, according to Livy, was the first proposal of an agrarian law; of which he adds, no one was ever proposed, down to the period of his remembrance, without very great public commotions. Dionysius informs us, further, that this public land, by the negligence of the magistrates, had been suffered to fall into the possession of rich men; but that, notwithstanding this, a division of the lands would have taken place under this law, if Cassius had not included among the receivers of the bounty the Latins and Hernici, whom he had but a little while before made citizens. After much debate in the senate upon this subject, a decree was passed to the following effect: that commissioners, called *decem-*

viros, appointed from among the persons of consular rank, should mark out, by boundaries, the public lands, and should designate how much should be let out, and how much should be distributed among the common people; that, if any land had been acquired by joint services in war, it should be divided, according to treaty, with those allies who had been admitted to citizenship; and that the choice of the commissioners, the apportionment of the lands, and all other things relating to this subject, should be committed to the care of the succeeding consuls. Seventeen years after this, there was a vehement contest about the division, which the tribunes proposed to make of lands then unjustly occupied by the rich men; and, three years after that, a similar attempt on the part of the tribunes would, according to Livy, have produced a ferocious controversy, had it not been for the address of Quintus Fabius. Some years after this, the tribunes proposed another law of the same kind, by which the estates of a great part of the nobles would have been seized to the public use; but it was stopped in its progress. Appian says, that the nobles and rich men, partly by getting possession of the public lands, partly by buying out the shares of indigent owners, had made themselves owners of all the lands in Italy, and had thus, by degrees, accomplished the removal of the common people from their possessions. This abuse stimulated Tiberius Gracchus to revive the Licinian law, which prohibited any individual from holding more than 500 *jugera*, or about 350 acres, of land; and would, consequently, compel the owners to relinquish all the surplus to the use of the public; but Gracchus proposed that the owners should be paid the value of the lands relinquished. The law, however, did not operate to any great extent, and, after having cost the Gracchi their lives, was by degrees rendered wholly inoperative. After this period, various other agrarian laws were attempted, and with various success, according to the nature of their provisions and the temper of the times in which they were proposed. One of the most remarkable was that of Rullus, which gave occasion to the celebrated oration against him by Cicero, who prevailed upon the people to reject the law.—From a careful consideration of these laws, and the others of the same kind on which we have not commented, it is apparent, that the whole object of the Roman agrarian laws was, the lands

belonging to the state, the public lands or national domains, which, as already observed, were acquired by conquest or treaty, and, we may add also, by confiscations or direct seizures of private estates by different factions, either for lawful or unlawful causes; of the last of which we have a well-known example in the time of Sylla's proscriptions. The lands thus claimed by the public became naturally a subject of extensive speculation with the wealthy capitalists, both among the nobles and other classes. In our own times, we have seen, during the revolution in France, the confiscation of the lands belonging to the clergy, the nobility and emigrants, lead to similar results. The sales and purchases of lands, by virtue of the agrarian laws of Rome, under the various complicated circumstances which must ever exist in such cases, and the attempts by the government to resume or re-grant such as had been sold, whether by right or by wrong, especially after a purchaser had been long in possession, under a title which he supposed the existing laws gave him, naturally occasioned great heat and agitation; the subject itself being intrinsically one of great difficulty, even when the passions and interests of the parties concerned would permit a calm and deliberate examination of their respective rights.—From the commotions which usually attended the proposal of agrarian laws, and from a want of exact attention to their true object, there has long been a general impression, among readers of the Roman history, that those laws were always a direct and violent infringement of the rights of private property. Even such men, it has been observed, as Machiavelli, Montesquieu and Adam Smith, have shared in this misconception of them. This erroneous opinion, however, has lately been exposed by the genius and learning of Niebuhr, in his *Roman History* above mentioned, a work which may be said to make an era in that department of learning, and in which he has clearly shown, that the original and professed object of the agrarian laws was the distribution of the *public* lands only, and not those of private citizens. Of the Licinian law, enacted about 376 B. C., on which all subsequent agrarian laws were modelled, Niebuhr enumerates the following as among the chief provisions: 1. The limits of the public land shall be accurately defined. Portions of it, which have been encroached on by individuals, shall be restored to the state. 2. Every

estate in the public land, not greater than this law allows, which has not been acquired by violence or fraud, and which is not on lease, shall be good against any third person. 3. Every Roman citizen shall be competent to occupy a portion of newly acquired public land, within the limits prescribed by this law, provided this land be not divided by law among the citizens, nor granted to a colony. 4. No one shall occupy of the public land more than five hundred *jugera*, nor pasture on the public commons more than a hundred head of large, nor more than five hundred head of small stock. 5. Those who occupy the public land shall pay to the state the tithe of the produce of the field, the fifth of the produce of the fruit-tree and the vineyard, and for every head of large stock,—and for every head of small stock,—yearly. 6. The public lands shall be farmed by the censors to those willing to take them on these terms. The funds hence arising are to be applied to pay the army.—The foregoing were the most important permanent provisions of the Licinian law, and, for its immediate effect, it provided that all the public land occupied by individuals, over five hundred *jugera*, should be divided by lot in portions of seven *jugera* to the plebeians.—But we must not hastily infer, as some readers of Niebuhr's work have done, that these agrarian laws did not in any manner violate private rights. This would be quite as far from the truth as the prevailing opinion already mentioned, which is now exploded. Besides the argument we might derive from the very nature of the case, we have the direct testimony of ancient writers to the injustice of such laws, and their violation of private rights. It will suffice to refer to that of Cicero alone, who says, in his Offices (lib. 2, c. 21), "Those men who wish to make themselves popular, and who, for that purpose, either attempt agrarian laws, in order to drive people from their possessions, or who maintain that creditors ought to forgive debtors what they owe, undermine the foundations of the state; they destroy all concord, which cannot exist when money is taken from one man to be given to another; and they set aside justice, which is always violated when every man is not suffered to retain what is his own"—which reflections would not have been called forth, unless the laws in question had directly and plainly violated private rights. The various modes in which those rights might be violated would require a longer discus-

sion, and one which would partake more of legal investigation, than might be admissible in the present work. But as the republic of the U. States, like that of Rome, has also been much occupied in legislating upon the subject of its public lands, and as laws have been made, in some of the states, bearing a considerable resemblance, in their operation, to the Roman agrarian laws, which will afford room for a useful and interesting comparison between the laws of the two republics, we shall make some further remarks upon this subject under the head of *Public Lands*. (See *Lands, public*.)

AGRICOLA, Cneius Julius; a Roman consul under the emperor Vespasian, and governor in Britain, all of which he reduced to the dominion of Rome, about 70 A. D.; distinguished as a statesman and general. His life has been excellently written by his son-in-law, the famous Tacitus, who holds him up as an example of virtue. This life of A., in addition to its excellence as a piece of biography, contains information interesting to the English antiquarian.

AGRICOLA, John, properly *Schnitter*, the son of a tailor at Eisleben, was born in 1492, and called, in his native city, *master of Eisleben* (*magister Isleb.*), also *John Eisleben*. He was one of the most active among the theologians who propagated the doctrines of Luther. He studied at Wittenberg and Leipsic; was afterwards rector and preacher in his native city, and, in 1526, at the diet of Spire, chaplain of the elector John of Saxony. He subsequently became chaplain to count Albert, of Mansfeld, and took a part in the delivery of the confession of Augsburg, and in the signing of the articles of Smalcald. When professor in Wittenberg, whither he went in 1537, he stirred up the Antinomian controversy with Luther and Melancthon. (See *Antinomianism*.) He afterwards lived at Berlin, where he died in 1566, after a life of controversy. Besides his theological works, he published a work explaining the common German proverbs. Its patriotic spirit, its strict morality and pithy style place it among the first German prose compositions of the time, at the side of Luther's translation of the Bible. In conjunction with Julius Pflug and Michael Heldingus, he composed the famous *In-terim*.

AGRICULTURAL CHEMISTRY. (See *Chemistry*.)

AGRICULTURE is the art of cultivating the earth in such a manner as to cause it

to produce, in the greatest plenty and perfection, those vegetables which are useful to man, and to the animals which he has subjected to his dominion. This art is the basis of all other arts, and in all countries coeval with the first dawn of civilization. Without agriculture, mankind would be savages, thinly scattered through interminable forests, with no other habitations than caverns, hollow trees or huts, more rude and inconvenient than the most ordinary hovel or cattle-shed of the modern cultivator. It is the most universal as well as the most ancient of the arts, and requires the greatest number of operators. It employs seven-eighths of the population of almost every civilized community.—Agriculture is not only indispensable to national prosperity, but is eminently conducive to the welfare of those who are engaged in it. It gives health to the body, energy to the mind, is favorable to virtuous and temperate habits, and to knowledge and purity of moral character, which are the pillars of good government and the true support of national independence.—With regard to the history of agriculture, we must confine ourselves to slight sketches. The first mention of agriculture is found in the writings of Moses. From them we learn that Cain was a “tiller of the ground,” that Abel sacrificed the “firstlings of his flock,” and that Noah “began to be a husbandman, and planted a vineyard.” The Chinese, Japanese, Chaldeans, Egyptians and Phœnicians appear to have held husbandry in high estimation. The Egyptians were so sensible of its blessings, that they ascribed its invention to superhuman agency, and even carried their gratitude to such an absurd excess as to worship the ox, for his services as a laborer. The Carthaginians carried the art of agriculture to a higher degree than other nations, their contemporaries. Mago, one of their most famous generals, wrote no less than twenty-eight books on agricultural topics, which, according to Columella, were translated into Latin by an express decree of the Roman senate.—Hesiod, a Greek writer, supposed to be contemporary with Homer, wrote a poem on agriculture, entitled *Weeks and Days*, which was so denominated because husbandry requires an exact observance of times and seasons. Other Greek writers wrote on rural economy, and Xenophon among the number, but their works have been lost in the lapse of ages.—The implements of Grecian agriculture were very few and simple. Hesiod mentions a plough, consist-

ing of three parts—the share-beam, the draught-pole and the plough-tail; but antiquarians are not agreed as to its exact form; also a cart with low wheels, and ten spans (seven feet six inches) in width; likewise the rake, sickle and ox-goat; but no description is given of the mode in which they were constructed. The operations of Grecian culture, according to Hesiod, were neither numerous nor complicated. The ground received three ploughings—one in autumn, another in spring, and a third immediately before sowing the seed. Manures were applied, and Pliny ascribes their invention to the Grecian king Augeas. Theophrastus mentions six different species of manures, and adds, that a mixture of soils produces the same effect as manures. Clay, he observes, should be mixed with sand, and sand with clay. Seed was sown by hand, and covered with a rake. Grain was reaped with a sickle, bound in sheaves, threshed, then winnowed by wind, laid in chests, bins or granaries, and taken out as wanted by the family, to be pounded in mortars or quern mills into meal.—The ancient Romans venerated the plough, and, in the earliest and purest times of the republic, the greatest praise which could be given to an illustrious character was to say that he was an industrious and judicious husbandman. M. Cato, the censor, who was celebrated as a statesman, orator and general, having conquered nations and governed provinces, derived his highest and most durable honors from having written a voluminous work on agriculture. In the *Georgics* of Virgil, the majesty of verse and the harmony of numbers add dignity and grace to the most useful of all topics. The celebrated Columella flourished in the reign of the emperor Claudius, and wrote twelve books on husbandry, which constituted a complete treatise on rural affairs. Varro, Pliny and Palladius were likewise among the distinguished Romans who wrote on agricultural subjects.—With regard to the Roman implements of agriculture, we learn that they used a great many, but their particular forms and uses are very imperfectly described. From what we can ascertain respecting them, they appear more worthy of the notice of the curious antiquarian, than of the practical cultivator. The plough is represented by Cato as of two kinds—one for strong, the other for light soils. Varro mentions one with two mould-boards, with which, he says, “when they plough, after sowing the seed, they are said to ridge.” Pliny

mentions a plough with one mould-board, and others with a coulter, of which he says there were many kinds.—Fallowing was a practice rarely deviated from by the Romans. In most cases, a fallow and a year's crop succeeded each other. Manure was collected from nearly or quite as many sources as have been resorted to by the moderns. Pigeons' dung was esteemed of the greatest value, and, next to that, a mixture of night soil, scrapings of the streets and urine, which were applied to the roots of the vine and olive.—The Romans did not bind their corn into sheaves. When cut, it was sent directly to the area to be threshed, and was separated from the chaff by throwing it from one part of the floor to the other. Feeding down grain, when too luxuriant, was practised. Virgil says, "What commendation shall I give to him, who, lest his corn should lodge, pastures it, while young, as soon as the blade equals the furrow!" (*Geor.*, lib. i, l. 111.) Watering on a large scale was applied both to arable and grass lands. Virgil advises to "bring down the waters of a river upon the sown corn, and, when the field is parched and the plants drying, convey it from the brow of a hill in channels." (*Geor.*, lib. i, l. 106.)—The farm management most approved of by the scientific husbandmen of Rome was, in general, such as would meet the approbation of modern cultivators. The importance of thorough tillage is illustrated by the following apologue: A vine-dresser had two daughters and a vineyard; when his oldest daughter was married, he gave her a third of his vineyard for a portion, notwithstanding which he had the same quantity of fruit as formerly. When his youngest daughter was married, he gave her half of what remained; still the produce of his vineyard was undiminished. This result was the consequence of his bestowing as much labor on the third part left after his daughters had received their portions, as he had been accustomed to give to the whole vineyard.—The Romans, unlike many conquerors, instead of desolating, improved the countries which they subdued. They seldom or never burned or laid waste conquered countries, but labored to civilize the inhabitants, and introduce the arts necessary for promoting their comfort and happiness. To facilitate communications from one district or town to another, seems to have been a primary object with them, and their works of this kind are still discernible in numerous places. By employing their troops in this way, when

not engaged in active service, their commanders seem to have had greatly the advantage over our modern generals. The Roman soldiers, instead of loitering in camps, or rioting in towns, enervating their strength, and corrupting their morals, were kept regularly at work, on objects highly beneficial to the interests of those whom they subjugated.—In the ages of anarchy and barbarism which succeeded the fall of the Roman empire, agriculture was almost wholly abandoned. Pasturage was preferred to tillage, because of the facility with which sheep, oxen, &c. can be driven away or concealed on the approach of an enemy.—The conquest of England by the Normans contributed to the improvement of agriculture in Great Britain. Owing to that event, many thousands of husbandmen, from the fertile and well-cultivated plains of Flanders and Normandy, settled in Great Britain, obtained farms, and employed the same methods in cultivating them, which they had been accustomed to use in their native countries. Some of the Norman barons were great improvers of their lands, and were celebrated in history for their skill in agriculture. The Norman clergy, and especially the monks, did still more in this way than the nobility. The monks of every monastery retained such of their lands as they could most conveniently take charge of, and these they cultivated with great care under their own inspection, and frequently with their own hands. The famous Thomas à Becket, after he was archbishop of Canterbury, used to go out into the field with the monks of the monastery where he happened to reside, and join with them in reaping their corn and making their hay. The implements of agriculture, at this period, were similar to those in most common use in modern times. The various operations of husbandry, such as manuring, ploughing, sowing, harrowing, reaping, threshing, winnowing, &c. are incidentally mentioned by the writers of those days, but it is impossible to collect from them a definite account of the manner in which those operations were performed.—The first English treatise on husbandry was published in the reign of Henry VIII, by sir A. Fitzherbert, judge of the common pleas. It is entitled the *Book of Husbandry*, and contains directions for draining, clearing and enclosing a farm, for enriching the soil, and rendering it fit for tillage. Lime, marl and fallowing are strongly recommended. "The author of the *Book of Husbandry*," says Mr. Lou-

don, "writes from his own experience of more than forty years, and, if we except his biblical allusions, and some vestiges of the superstition of the Roman writers about the influence of the moon, there is very little of his work which should be omitted, and not a great deal that need be added, in so far as respects the culture of corn, in a manual of husbandry adapted to the present time."—Agriculture attained some eminence during the reign of Elizabeth. The principal writers of that period were Tusser, Gooze and sir Hugh Platt. Tusser's *Five Hundred Points of Husbandry* was published in 1562, and conveys much useful instruction in metre. The treatise of Barnaby Gooze, entitled *Whole Art of Husbandry*, was printed in 1558. Sir Hugh Platt's work was entitled *Jewel Houses of Art and Nature*, and was printed in 1594. In the former work, says Loudon, are many valuable hints on the progress of husbandry in the early part of the reign of Elizabeth. Among other curious things, he asserts that the Spanish or Merino sheep was originally derived from England.—Several writers on agriculture appeared in England during the commonwealth, whose names, and notices of their works, may be seen in Loudon's *Encyclopædia of Agriculture*. From the restoration down to the middle of the eighteenth century, agriculture remained almost stationary. Immediately after that period, considerable improvement in the process of culture was introduced by Jethro Tull, a gentleman of Berkshire, who began to drill wheat and other crops about the year 1701, and whose *Horsehoeing Husbandry* was published in 1731. Though this writer's theories were in some respects erroneous, yet even his errors were of service, by exciting inquiry, and calling the attention of husbandmen to important objects. His hostility to manures, and attempting, in all cases, to substitute additional tillage in their place, were prominent defects in his system.—After the time of Tull's publication, no great alteration in British agriculture took place, till Robert Bakewell and others effected some important improvements in the breed of cattle, sheep and swine. By skilful selection at first, and constant care afterwards to breed from the best animals, Bakewell at last obtained a variety of sheep, which, for early maturity and the property of returning a great quantity of mutton for the food which they consume, as well as for the small proportion which the weight of the offal bears to the four

quarters, were without precedent. Culley, Cline, lord Somerville, sir J. S. Sebright, Darwin, Hunt, Hunter, Young, &c. &c. have all contributed to the improvement of domestic animals, and have left little to be desired in that branch of rural economy.—Among other works on agriculture, of distinguished merit, may be mentioned the *Farmer's Letters*, Tour in France, *Annals of Agriculture*, &c. &c. by the celebrated Arthur Young; Marshall's numerous and excellent works, commencing with *Minutes of Agriculture*, published in 1787, and ending with his *Review of the Agricultural Reports* in 1816; *Practical Agriculture*, by Dr. R. W. Dickson, &c. &c. The writings of Kaimes, Anderson and Sinclair exhibit a union of philosophical sagacity and patient experiment, which have produced results of great importance to the British nation and to the world. To these we shall only add the name of John Loudon, F. L. S. H. S., whose elaborate *Encyclopædia of Gardening* and *Encyclopædia of Agriculture* have probably never been surpassed by any similar works in any language.—The establishment of a national board of agriculture was of very great service to British husbandry. Hartlib, a century before, and lord Kaimes, in his *Gentleman Farmer*, had pointed out the utility of such an institution, but it was left to sir John Sinclair to carry their ideas into execution. To the indefatigable exertions of that worthy and eminent man the British public are indebted for an institution, whose services cannot be too highly appreciated. "It made farmers, residing in different parts of the kingdom, acquainted with one another, and caused a rapid dissemination of knowledge amongst the whole profession. The art of agriculture was brought into fashion, old practices were amended, new ones introduced, and a degree of exertion called forth heretofore unexampled among agriculturists in this island."—We shall now make a few remarks on the agriculture of different countries of Europe and of the U. States.

French agriculture began to flourish early in the 17th century, under Henry IV, and a work on that subject was published by Olivier de Serres. In 1761, there were 13 agricultural societies in France, and 19 auxiliary societies. Those of Paris, Amiens and Bourdeaux have distinguished themselves by their memoirs. Du Hamel and Buffon made the study of rural economy fashionable, and other writers contributed to the advance-

ment of husbandry. M. de Trudaine introduced the Merino breed of sheep in 1776, and count Lasteyrie has written a valuable work on sheep-husbandry. The celebrated Arthur Young made an agricultural survey of France in 1787—89. Since that time, several French and English writers have given the statistics of different districts, and the mode of cultivation there in use, and the abbé Rosier and professor Thouin have published general views of the whole kingdom. Buonaparte established many new agricultural societies and professorships, botanical and economical gardens, for the exhibition of different modes of culture, and the dissemination of plants. He also greatly enlarged and enriched that extensive institution, the National Garden, whose professor of culture, the chevalier Thouin, is one of the most scientific agriculturists in Europe.—The lands in France are not generally enclosed and subdivided by hedges or other fences. Some fences occur near towns, but, in general, the whole country is open, the boundaries of estates being marked by slight ditches or ridges, with occasional stones or heaps of earth, trees in rows or thinly scattered. Depredations from passengers on the highways are prevented by *gardes champêtres*, which are established throughout all France.—Since the time of Colbert, the French have paid attention to sheep, and there are considerable flocks of Merinos owned by individuals, besides the national flocks. That of Rambouillet, established in 1786, is, or lately was, managed by M. Tessier, an eminent writer on agriculture. Sheep are generally housed, or kept in folds and little yards or enclosures. Mr. Birkbeck considers the practice of housing or confining sheep as the cause of foot-rot, a disease very common among them in France. Where flocks remain out all night, the shepherd sleeps in a small thatched hut, or portable house, placed on wheels. He guides the flock by walking before them, and his dog guards them from wolves, which still abound in some parts of the country. In the south part of France, the ass and the mule are of frequent use in husbandry. A royal stud of Arabian horses has been kept up at Aurillac, in Limousin, for more than a century, and another has been more recently established near Nismes. Poultry is an important article in French husbandry. Mr. Birkbeck thinks that the consumption of poultry in towns may be equal to that of mutton. The breed of

swine is in general bad; but fine hams are made in Bretagne from hogs reared on acorns, and fattened with Indian corn.—The French implements of agriculture are generally rude and unwieldy, and the operations of husbandry unskilfully performed.—The vine is cultivated in France in fields and on terraced hills, in a way different from that which prevails elsewhere. It is planted in hills, like Indian corn, kept low, and managed like a plantation of raspberries. The white mulberry tree is very extensively cultivated for feeding the silk-worm. It is not placed in regular plantations, but in corners, in rows by the sides of roads, &c. The trees are raised from the seed in nurseries, and sold, generally, at five years' growth, when they have strong stems. They are planted, staked, and treated as pollards. The eggs of the silk-worm are hatched in rooms heated by means of stoves to 18° of Réaumur (72½ Fah.) One ounce of eggs requires one hundred weight of leaves, and will produce from 7 to 9 pounds of raw silk. The hatching commences about the end of April, and, with the feeding, is over in about a month. Second broods are procured in some places. The silk is wound off the cocoons, in little balls, by women and children. The olive, the fig, the almond and various other fruits are also extensively cultivated in France.

Agriculture in Germany. The earliest German writer on husbandry was Conradus Heresbachius, who lived and died in the 16th century. His work, *De Re Rustica*, was an avowed compilation from all the authors who had preceded him. No other books on agriculture, of any note, appeared previous to the 17th century. With regard to the present state of agriculture in Germany, we would remark, that the country is very extensive, and presents a great variety of soils, surface, climate and culture. Its agricultural produce is, for the most part, consumed within its limits; but excellent wines are exported from Hungary and the Rhine, together with flax, hams, geese, silk, &c. The culture of the mulberry and the rearing of the silk-worm are carried on as far north as Berlin. The theoretical agriculturists are well acquainted with all the improved implements of Great Britain, and some of them have been introduced, especially in Holstein, Hanover and Westphalia; but, generally, speaking the ploughs, wagons, &c. are unwieldy and inefficient. Fish are carefully bred and fattened in some places, espe-

cially in Prussia, and poultry is every where attended to, particularly in the neighborhood of Vienna. The culture of forests likewise receives particular attention in that country as well as in France. The common agriculture of Germany is every where improving. Government, as well as individuals, have formed institutions for the instruction of youth in its principles. The Imperial Society of Vienna, the Geographical Institution at Presburg, and that of professor Thaer, in Prussia, may be numbered among recent institutions of this description.

Agriculture in Italy. The climate, soil and surface of Italy are so various as to have given rise to a greater diversity of culture than is to be found in the whole of Europe besides. Corn, grass, butcher's meat, cheese, butter, rice, silk, cotton, wine, oil and fruits of all kinds are found in perfection in this fertile country. Loudon asserts that only one-fifth of the surface of Italy is considered sterile, while only a fifth of the surface of France is considered fertile. The population of Italy is greater, in proportion to its surface, than that of either France or Great Britain. Among the writers on the rural economy of Italy are, Arthur Young, in 1788, Sigismondi, in 1801, and Chateauxvieux, in 1812.—In Lombardy, the lands are generally farmed by *metayers* (from *metà*, half). The landlord pays the taxes and repairs the buildings. The tenant provides cattle, implements and seeds, and the produce is divided. The irrigation of lands, in Lombardy, is a remarkable feature of Italian husbandry. All canals taken from rivers are the property of the state, and may be carried through any man's land, provided they do not pass through a garden, or within a certain distance of a mansion, on paying the value of the ground occupied. Water is not only employed for grass-lands (which, when fully watered, are mowed four and sometimes five times a year, and, in some cases, as early as March), but is conducted between the narrow ridges of corn-lands, in the hollows between drilled crops, among vines, or to flood lands, to the depth of a foot or more, which are sown with rice. Water is also used for depositing a surface of mud, in some places where it is charged with that material. The details of watering, for these and other purposes, are given in various works, and collected in those of professor Re. In general, watered lands let at one third higher price than those not irrigated.—The imple-

ments and operations of agriculture in Lombardy are both imperfect. The plough is a rude contrivance, with a handle 13 or 14 feet long. But the cattle are fed with extraordinary care. They are tied up in stalls, bled once or twice, cleaned and rubbed with oil, afterwards combed and brushed twice a day. Their food in summer is clover or other green herbage; in winter, a mixture of elm-leaves, clover-hay, and pulverized walnut-cake, over which boiling water is poured, and bran and salt added. In a short time, the cattle cast their hair, grow smooth, round and fat, and so improved as to double their value to the butcher.—The tomato or love-apple (*solanum lycopersicum*), so extensively used in Italian cookery, forms an article of field-culture near Pompeii, and especially in Sicily, from whence it is sent to Naples, Rome and several towns on the Mediterranean sea.

Agriculture of the U. States of America. The territory of the U. States is very extensive, and presents almost every variety of soil and climate. The agriculture of this wide-spread country embraces all the products of European cultivation, together with some (such as sugar and indigo) which are rarely made objects of tillage in any part of Europe. A full description of the agriculture of these states would require a large volume. We shall confine ourselves to such sketches as we may deem of most practical importance to those who are or intend to become cultivators of North American soil.—The farms of the Eastern, Northern and Middle States consist, generally, of from 50 to 200 acres, seldom rising to more than 300, and generally falling short of 200 acres. These farms are enclosed, and divided either by stone walls, or rail fences made of timber, hedges not being common. The building first erected on a "new lot," or on a tract of land not yet cleared from its native growth of timber, is what is called a *log-house*. This is a hut or cabin made of round, straight logs, about a foot in diameter, lying on each other, and notched in at the corners. The intervals between the logs are filled with slips of wood, and the crevices generally stopped with mortar made of clay. The fire-place commonly consists of rough stones, so placed as to form a hearth, on which wood may be burned. Sometimes these stones are made to assume the form of a chimney, and are carried up through the roof; and sometimes a hole in the roof is the only substitute for a chimney. The roof is

made of rafters, forming an acute angle at the summit of the erection, and is covered with shingles, commonly split from pine-trees, or with bark, peeled from the hemlock (*pinus canadensis*).—When the occupant or “first settler” of this “new land” finds himself in “comfortable circumstances,” he builds what is styled a “frame house,” composed of timber, held together by tenons, mortises and pins, and boarded, shingled and clap-boarded on the outside, and often painted white, sometimes red. Houses of this kind generally contain a dining-room and kitchen and three or four bed-rooms on the same floor. They are rarely destitute of good cellars, which the nature of the climate renders almost indispensable. The farm-buildings consist of a barn, proportioned to the size of the farm, with stalls for horses and cows on each side, and a threshing-floor in the middle; and the more wealthy farmers add a cellar under the barn, a part of which receives the manure from the stalls, and another part serves as a store-room for roots, &c. for feeding stock. What is called a *corn-barn* is likewise very common, which is built exclusively for storing the ears of Indian corn. The sleepers of this building are generally set up four or five feet from the ground, on smooth stone posts or pillars, which rats, mice or other vermin cannot ascend.—With regard to the best manner of clearing forest-land from its natural growth of timber, the following observations may be of use to a “first settler.” In those parts of the country where wood is of but little value, the trees are felled in one of the summer months, the earlier in the season the better, as the stumps will be less apt to sprout, and the trees will have a longer time to dry. The trees lie till the following spring, when such limbs as are not very near the ground should be cut off, that they may burn the better. Fire must be put to them in the driest part of the month of May, or, if the whole of that month prove wet, it may be applied in the beginning of June. Only the bodies of the trees will remain after burning, and some of them will be burned into pieces. Those which require to be made shorter are cut in pieces nearly of a length, drawn together by oxen, piled in close heaps, and burned, such trees and logs being reserved as may be needed for fencing the *lot*. The heating of the soil so destroys the green roots, and the ashes made by the burning are so beneficial as manure to the land, that it will produce a

good crop of wheat or Indian corn without ploughing, hoeing or manuring.—If new land lie in such a situation that its natural growth may turn to better account, whether for timber or fire-wood, it will be an unpardonable waste to burn the wood on the ground. But if the trees be taken off, the land must be ploughed after clearing, or it will not produce a crop of any kind.—The following remarks on this subject are extracted from some observations by Samuel Preston, of Stockport, Pennsylvania, a very observing cultivator. They were first published in the *New England Farmer*, Boston, Massachusetts, and may prove serviceable to settlers on uncleared lands. Previous to undertaking to clear land, Mr. Preston advises,—“1st. Take a view of all large trees, and see which way they may be felled for the greatest number of small trees to be felled along-side or on them. After felling the large trees, only lop down their limbs; but all such as are felled near them should be cut in suitable lengths for two men to roll and pile about the large trees, by which means they may be nearly all burned up, without cutting into lengths, or the expense of a strong team, to draw them together. 2d. Fell all the other trees parallel, and cut them into suitable lengths, that they may be readily rolled together without a team, always cutting the largest trees first, that the smallest may be loose on the top, to feed the fires. 3d. On hill-sides, fell the timber in a level direction; then the logs will roll together; but if the trees are felled down hill, all the logs must be turned round before they can be rolled, and there will be stumps in the way. 4th. By following these directions, two men may readily heap and burn most of the timber, without requiring any team; and perhaps the brands and the remains of the log-heaps may all be wanted to burn up the old, fallen trees. After proceeding as directed, the ground will be clear for a team and sled to draw the remains of the heaps where they may be wanted round the old logs. Never attempt either to chop or draw a large log, until the size and weight are reduced by fire. The more fire-heaps there are made on the clearing, the better, particularly about the old logs, where there is rotten wood. The best time of the year to fell the timber in a great measure depends on the season’s being wet or dry. Most people prefer having it felled in the month of June, when the leaves are of full size. Then, by spreading the leaves and brush over the ground (for

they should not be heaped), if there should be a very dry time the next May, fire may be turned through it, and will burn the leaves, limbs and top of the ground, so that a very good crop of Indian corn and pumpkins may be raised among the logs by hoeing. After these crops come off, the land may be cleared and sowed late with rye and timothy grass, or with oats and timothy in the spring. If what is called a *good burn* cannot be had in May, keep the fire out until some very dry time in July or August; then clear off the land, and sow wheat or rye and timothy, harrowing several times, both before and after sowing; for, after the fire has been over the ground, the sod of timothy should be introduced as soon as the other crops will admit, to prevent briars, alders, fire-cherries, &c. from springing up from such seeds as were not consumed by the fire. The timothy should stand four or five years, either for mowing or pasture, until the small roots of the forest-trees are rotten; then it may be ploughed; and the best mode which I have observed is, to plough it very shallow in the autumn; in the spring, cross-plough it deeper, harrow it well, and it will produce a first-rate crop of Indian corn and potatoes, and, the next season, the largest and best crop of flax that I have ever seen, and be in order to cultivate with any kinds of grain, or to lay down again with grass.—These directions are to be understood as applying to what are generally called *beech lands*, and the chopping may be done any time in the winter, when the snow is not too deep to cut low stumps, as the leaves are then on the ground. By leaving the brush spread abroad, I have known such winter chopplings to burn as well in a dry time in August as that which had been cut the summer before.”—The agricultural implements and farming operations of the U. States are, in most particulars, very similar to those of Great Britain. Circumstances, however, require variations, which the sagacity of the American cultivator will lead him to adopt, often in contradiction to the opinions of those who understand the science better than the practice of husbandry. In Europe, land is dear and labor cheap; but in the U. States, the reverse is the case. The European cultivator is led, by a regard to his own interest, to endeavor to make the most of his land; the American cultivator has the same inducement to make the most of his labor. Perhaps, however, this principle, in America, is generally

carried to an unprofitable extreme, and the farmers would derive more benefit from their land, if they were to limit their operations to such parts of their possessions as they can afford to till thoroughly and to manure abundantly. A man may possess a large landed estate, without being called on by good husbandry to hack and scratch over the whole, as evidence of his title. He may cultivate well those parts which are naturally most fertile, and suffer the rest to remain woodland, or, having cleared a part, lay it down to permanent pasture, which will yield him an annual profit, without requiring much labor.—The climate and soil of the U. States are adapted to the cultivation of Indian corn, a very valuable vegetable, which, it has been supposed, could not be raised to advantage in Great Britain.* This entirely and very advantageously supersedes the field culture of the horse-bean (*vicia faba*), one of the most common fallow crops in that island. The *root husbandry*, or the raising of roots for the purpose of feeding cattle, is likewise of less importance in the U. States than in Great Britain. The winters are so severe in the northern section of the Union, that turnips can rarely be fed on the ground, and all sorts of roots are with more difficulty preserved and dealt out to stock, in this country, than in those which possess a milder climate. Besides, hay is more easily made from grass in the U. States than in Great Britain, owing to the season for hay-making being generally more dry, and the sun more powerful. There are many other circumstances which favor the American farmer, and render his situation more eligible than that of the European. He is generally the owner as well as the occupier of the soil which he cultivates; is not burthened with tithes; his taxes are light; and the product of his labors will command more of the necessities, comforts and innocent luxuries of life.—The American public seem, at present, fully aware of the importance of spirited and scientific agriculture. The state of Massachusetts has appropriated considerable sums to add to the funds of the agricultural societies in that commonwealth. Institutions for the promotion of husbandry, cattle-shows and exhibitions of manufactures are common in every part of the Union.

* Mr. Cobbett has lately attempted to raise Indian corn in England. In a book which he published in London, 1823, (*A Treatise on Cobbett's Corn*,) he professes to have met with much success in the culture of it.

A periodical publication, entitled the *American Farmer*, is established at Baltimore, and another, called the *New England Farmer*, is published in Boston. Men of talents, wealth and enterprise have distinguished themselves by their laborious and liberal efforts for the improvement of American husbandry. Merino sheep have been imported by general Humphreys, chancellor Livingston and others, and are now common in the U. States. The most celebrated breeds of British cattle have been imported by colonel Powel of Powelton, near Philadelphia; and there prevails a general disposition, among men of intelligence and high standing in the community, to promote the prosperity of American agriculture.—We shall conclude with a few brief notices of some of the most prominent benefits and improvements which modern science has contributed to the art of agriculture. The husbandmen of antiquity, as well as those of the middle ages, were destitute of many advantages enjoyed by the modern cultivator. Neither the practical nor the theoretical agriculturists of those periods had any correct knowledge of geology, mineralogy, chemistry, botany, vegetable physiology or natural philosophy; but these sciences have given the modern husbandman the command of important agents, elements and principles, of which the ancients had no idea. The precepts of their writers were conformable to their experience; but the *rationale* of the practices they prescribed they could not, and rarely attempted to explain. Nature's most simple modes of operation were to them inexplicable, and their ignorance of causes often led to erroneous calculations with regard to effects. We are indebted to modern science for the following among other improvements: viz. 1. A correct knowledge of the nature and properties of manures, mineral, animal and vegetable; the best modes of applying them, and the particular crops for which particular sorts of manures are best suited. 2. The method of using all manures of animal and vegetable origin while fresh, before the sun, air and rain, or other moisture, has robbed them of their most valuable properties. It was formerly the practice to place barn-yard manure in layers or masses for the purpose of rotting, and turn it over frequently with the plough or spade, till the whole had become a mere *caput mortuum*, destitute of almost all its original fertilizing substances, and deteriorated in quality almost as much as it was reduced in

quantity. 3. The knowledge and means of chemically analyzing soils, by which we can ascertain their constituent parts, and thus learn what substances are wanted to increase their fertility. 4. The introduction of the root husbandry, or the raising of potatoes, turnips, mangel-wurzel, &c. extensively, by field husbandry, for feeding cattle, by which a given quantity of land may be made to produce much more nutritive matter than if it were occupied by grain or grass crops, and the health as well as the thriving of the animals in the winter season greatly promoted. 5. Laying down lands to grass, either for pasture or mowing, with a greater variety of grasses, and with kinds adapted to a greater variety of soils; such as orchard-grass (*dactylis glomerata*), for dry land, foul-meadow-grass (*agrostis stricta*), for very wet land; herds'-grass or timothy (*phleum pratense*), for stiff, clayey soils, &c. &c. 6. The substitution of fallow crops (or such crops as require cultivation and stirring of the ground while the plants are growing), in the place of naked fallows, in which the land is allowed to remain without yielding any profitable product, in order to renew its fertility. Fields may be so foul with weeds as to require a fallow, but not what is too often understood by that term in this country. "In England, when a farmer is compelled to fallow a field, he lets the weeds grow into blossom, and then turns them down; in America, a fallow means a field where the produce is a crop of weeds running to seed, instead of a crop of grain." 7. The art of breeding the best animals and the best vegetables, by a judicious selection of individuals to propagate from.—These improvements, with others too numerous to be here specified, have rendered the agriculture of the present period very different from that of the middle ages when it had sunk far below the degree of perfection which it had reached among the Romans.

AGRIGENTUM, in ancient geogr.; now *Girgenti* or *Agrigenti*; a town in Sicily, in the valley of Mazara, about three miles from the coast. The modern town is near the ruins of the ancient one, is a bishop's see, and lies on the river St. Blaise, 47 miles S. Palermo; long. 13° 33' E.; lat. 37° 22', N.; pop. 11,876.—A, was much renowned among the ancients. Different stories are told of its foundation, among which is the fabulous tale, that Dædalus, who fled to Sicily from the resentment of Minos, erected it. Its situation was peculiarly strong and imposing, standing as it

did on a bare and precipitous rock, 1100 feet above the level of the sea. To this military advantage, the city added those of a commercial nature, being near to the sea, which afforded the means of an easy intercourse with the ports of Africa and the south of Europe. The soil of A. was very fertile. By means of these advantages, the wealth of A. became very great. It was therefore considered the second city in Sicily, and Polybius says (l. ix.) that it surpassed in grandeur of appearance, on account of its many temples and splendid public buildings, most of its contemporaries. Among the most magnificent of these buildings were the temples of Minerva, of Jupiter Atabyris, of Hercules, and of Jupiter Olympius; the latter, which vied in size and grandeur of design with the finest buildings of Greece, is said by Diodorus (Sic. l. xiii.) to have been 340 feet long, 60 broad, and 120 high, the foundation not being included, which was itself remarkable for the immense arches upon which it stood. The temple was ornamented with admirable sculpture. But a war prevented the completion of it, when the roof only remained unfinished. Near the city was an artificial lake, cut out of the solid rock, about a mile in circuit, and thirty feet deep; from which fish were obtained in abundance for the public feasts. Swans and other water-fowl frequented it. Afterwards, the mud having been suffered to accumulate in this basin, it was turned into a remarkably fruitful vineyard. Both the temple of Jupiter Olympius and the lake were the work of a number of Carthaginian captives. The people of Agrigentum were noted for their luxurious and extravagant habits. Their horses were also famous. (*Virgil, Æn. l. iii. v. 705.*) After the expulsion of the Carthaginians from Sicily, it fell, with little resistance, under the power of the Romans. Diodorus states the population, in its best days, to have been not less than 120,000 persons. Many of the modern writers describe minutely this interesting spot. Christian churches have there, as in many other places, been erected out of the remains of temples.

AGRIONIA; a Grecian festival, solemnized at night in honor of Bacchus. He was supposed to have fled, and the females assembled to seek him. At length, tired of their vain search, they exclaimed, that he had taken refuge with the Muses, and concealed himself among them. These mysteries have been thought to signify that learning and the muses should accompany good cheer. This solemnity

was followed by a banquet, at the close of which it was customary to propose to each other riddles, whence A. is used to denote a collection of riddles, charades, &c.

AGRIPPA, Henry Cornelius, born in 1486, at Cologne, was a man of talents, learning and eccentricity. In his youth, he was secretary to the emperor Maximilian, subsequently served 7 years in Italy, and was knighted. He says that he was acquainted with 8 languages. On quitting the army, he devoted himself to science, and made pretensions to an acquaintance with magic. In certain lectures, he advanced opinions which involved him in contests with the monks for the remainder of his life. In 1530, he wrote a treatise "On the Vanity of the Sciences," which was a caustic satire upon the inefficiency of the common modes of instruction, and upon the monks, theologians and members of the universities. At a subsequent period, he produced another treatise at Antwerp, "On the Occult Philosopher." This was a sketch of mystical theology, explaining, on the principles of the emanative system, the harmony of the elementary, celestial and intellectual worlds. His pretensions to skill in occult science, particularly alchymy, led to his receiving numerous invitations from royal personages and others of high rank, and his inability to answer their absurd expectations produced their subsequent neglect of him. After an active, varied and eventful life, he died at Grenoble, in 1539.

AGRIPPA, Marcus Vipsanius; a Roman, the son-in-law of Augustus, with whom he was twice consul. Although not of high birth, his talents soon raised him to honor. He distinguished himself as a general, and commanded the fleet of Augustus in the battle at Actium. As the minister and friend of the emperor, he rendered many services to him and the Roman state. He was impartial and upright, and a friend of the arts. To him Rome is indebted for 3 of her principal aqueducts, and several other works of public use and ornament. (See *Augustus*.)

AGRIPPINA. 1. The wife of the emperor Tiberius, who very reluctantly divorced her, when obliged to marry Julia, the daughter of Augustus, after the death of her first husband, Agrippa. A. was subsequently married to Asinius Gallus, whom Tiberius, still retaining his love for his former wife, condemned to perpetual imprisonment, in the spirit of a jealous rival. —2. The daughter of Marcus Vipsanius Agrippa, by Julia, daughter of Augustus;

wife of C. Germanicus; a heroic woman, adorned with great virtues. She accompanied her husband in all his campaigns, and accused Tiberius, before the senate, of compassing his death. The tyrant, who hated her for her virtues and popularity, banished her to the island of Pandataria, where she starved herself to death. The cabinet of antiquities at Drésden possesses 4 famous busts of this A.—3. A daughter of the last mentioned A. and sister of Caligula, born at Cologne, which she enlarged, and called *Colonia Agrippinæ*. She had the misfortune to become the mother of Nero, by Domitius Ahenobarbus. Her third husband was the emperor Claudius, brother of her father, who married her after he had divorced Messalina. She was distinguished for ability and political experience, but her ambition was boundless, and her disposition cunning and dissolute. She was murdered by Nero, her son, to whom she was troublesome after he had become emperor. It is said, that she begged the assassins to stab her first in the womb, that had brought forth such a monster.

AGUE, in medicine; a disorder belonging to the class of intermittent fevers (*febres intermittentes*.) It may be followed by serious consequences, but, generally, it is more troublesome than dangerous, and is sometimes even considered salutary. According to the length of the *apyrexia*, or intermission between one febrile paroxysm and another, agues are denominated *quotidians*, *tertians*, or *quartans*; which latter are much the most obstinate, being generally attended with a greater degree of visceral obstruction than those the attacks of which return at shorter intervals. The quartan ague is apt to terminate in dropsy. An ague paroxysm has been divided into the cold, the hot and the sweating stages. The feeling of extreme cold, in the first stage, cannot be prevented by fire or the heat of summer. Generally, after the sweating stage, in which there is a profuse exhalation from the pores of the skin, with a flow of urine, depositing a copious sediment, of a lateritious or brick-dust appearance, the patient falls into a refreshing sleep, from which he awakes without any remains of indisposition, except a slight degree of languor and debility. Agues occur chiefly in situations where there are shallow, stagnant waters. Hence their frequency in Holland, in the East and West Indies, in the flat, marshy parts of England, and the thinly settled parts of the U. States, where they diminish with the clearing of the woods and the

draining of the lands. The neighborhood of rivers or marshes, therefore, is carefully to be avoided by persons afflicted with agues. They are cured by medicines, which, at the same time that they exert a tonic influence, produce and keep up an impression upon the system greater than that communicated by the causes of the disease; such as Peruvian bark, various bitter and astringent drugs, certain metallic salts, &c.

AGUE-CAKE; a name sometimes given to a hard tumor on the left side of the belly, lower than the false ribs, said to be the effect of intermittent fever.

AGUESSEAU, Henry Francis d', a man distinguished in the annals of French eloquence and jurisprudence, was born at Limoges in 1668, and early evinced distinguished talents. His father, intendant of Languedoc, was his first instructor. The intercourse of d'A. with Racine and Boileau formed his taste for poetry. He was, in 1691, *avocat général* at Paris, and at the age of 32 years, *procureur général* of the parliament. In this office, he effected many improvements in the laws and the administration of justice, and took particular care of the government of hospitals. During a famine in the winter of 1709, he employed all his power to relieve the suffering. As a steady defender of the privileges of the nation and the Gallican church, he procured the rejection of the decrees of Louis XIV, and the chancellor Voisin, in favor of the papal bull *Unigenitus*. Under the government of the duke of Orleans, he was made chancellor in 1717, but fell, in 1718, into disgrace, on account of his opposition to Law's destructive system of finance, and retired to his country seat at Fresnes. He there passed, according to his own words, the happiest days of his life, employed in reading the Bible, projecting a code, and instructing his children. Mathematics, agriculture and the arts and sciences occupied his leisure hours. In 1720, loud clamors against Law were raised throughout France, and it was thought that a man like d'A., who possessed the love of the nation, was necessary to allay the general discontent. He was, therefore, replaced in his former dignity. This period of his life did not add to his renown; for he accepted his office from Law, and gave his consent to certain weak and injurious plans, which the parliament rejected; he finally suffered the same parliament to be exiled to Pontoise. In 1722, he was banished a second time, for opposing the cardinal Dubois,

but was recalled in 1727 by the cardinal Fleury, and in 1737 restored to his former office. He formed the design of introducing uniformity into the execution of the ancient laws, and of adding what was wanting. But this work surpassed the ability of a single man. He died in 1751, after resigning, in 1750, the office of chancellor. His works, which have passed through several editions, are said, by Bouterwek, to be models of their kind; full of spirit, judicious, elegant, yet powerful, and rich in valuable instruction for statesmen and lawyers. His discourses, with which he opened the sittings of the parliament, are excellent.—His nephew, the marquis d'Aguesseau (Henry Cardin Jean Baptiste), peer of France, and member of the academy of sciences, died at Paris, January 22, 1826. He was a lawyer, member of the first national assembly, and senator under Napoleon; afterwards, a faithful adherent of the king.

AGUIRRA, Joseph Saenz de, a Benedictine, and learned man, was born in 1630. He was censor and secretary of the supreme council of the inquisition in Spain, and professor in the university of Salamanca. He published commentaries on Aristotle's Ethics. He died at Rome, in 1699.

AGUSTINI, in mineralogy; a term by which professor Tromsdorff has designated a supposed new earth, discovered by him in 1808. It bears a great resemblance to alumina.—*Annales de Chimie*, xxxiv, p. 133.

AGUTI, the *cavia aguti* of Linnæus; an American animal, much resembling the Guinea pig. There are three varieties, all indigenous to South America and the West Indies. They live on vegetables, inhabit hollow trees, and burrow in the ground. They eat like the squirrels, grow fat, and are used as food in South America. They propagate very fast.

AGYNIANI, or AGYNNENSES. (See *Shakers*.)

AHANTA; a kingdom on the Gold Coast of Africa, extending from the Ancobra to the Chamah; bounded on the west by Apollonia, and on the east by the Fantee territories. It is the richest, and in every respect the most improved district upon this coast. The principal towns are Axim, Dixcove and Succondee.

AHASUERUS, in Scripture history; a king of Persia, the husband of Esther, to whom the Scriptures ascribe a singular deliverance of the Jews from extirpation, which they commemorate to this day, by an annual feast, that of Purim, preceded

by what is called the *fast of Esther*. Different opinions have been entertained by Scaliger, Prideaux and others as to which of the kings of Persia mentioned in other historical books may be the A. of the Bible.—*Ahasuerus* is also a Scripture name for Cambyzes, the son of Cyrus, *Ezra* iv. 6. and for Astyages, king of the Medes, *Dan*. ix. 1.

AHITOPHEL; one of king David's counsellors, and highly esteemed for his political sagacity. He was certainly one of the first men of his age, both for wisdom and wickedness. His advice to Absalom, who followed the wicked part of it, but left the wise part unaccomplished, together with the tragical end of the politician, the first suicide recorded in history, are well known.

A-HULL; the situation of a ship when all her sails are furled on account of the violence of a storm, when, having lashed her helm on the lee-side, she lies nearly with her side to the wind and sea, her head being somewhat inclined to the direction of the wind.

AID; a subsidy paid, in ancient feudal times, by vassals to their lords on certain occasions.

AID-MAJOR. (See *Adjutant*.)

AIGNAN, Stephen, a poet and author, born in 1773, at Beaugency, on the river Loire, and since 1814 a member of the French academy, has distinguished himself by successful translations of the *Iliad*, and of Pope's *Essay on Criticism*, into verse. The translation of the *Iliad* is the best in the French language. He also translated the *Odyssey*, but we know not whether the version has been published. He translated, likewise, some English tales, e. g. the *Vicar of Wakefield*. His original writings consist of a tragedy, *Brunchaut*; an opera, *Nephthali*, with music by Blangini; and some excellent political essays, *Sur le jury*; *De l'état des protestants en France, depuis le XV siècle, jusqu'à nos jours*, &c. 2d ed. Paris, 1818, and *Sur les coups d'état*; as well as various contributions of merit to the *Minerve Française*. He was liberal in his views, wrote well and independently, but with moderation. A. showed remarkable courage in publishing his tragedy, *La Mort de Louis XVI*, his first poem, a few weeks after the execution of the king. He held several public offices during the reign of terror, and opposed, in some cases successfully, the tyranny of the administration. A. died at Paris, June 23, 1824. His place in the academy was filled by Sommet.

AIGUILLON, duke d'; peer of France, and minister of foreign affairs under Louis XV; distinguished, as a courtier, by his ready wit, but destitute of almost all the qualities that constitute the statesman. During his ministry the partition of Poland took place; and till it was actually accomplished, d' A. knew nothing of this profligate project. Even Louis XV exclaimed, when it came to his knowledge, "Had Choiseul been here, this partition would never have taken place." D' A. was born in 1720. When he first appeared at the court of Louis, he struck the fancy of the duchess of Chateauroux, mistress of the king. She obtained him an appointment in the army in Italy. After experiencing many alternations of favor and disgrace, he was admitted, through the influence of the countess du Barry, into the ministry with the abbé Terrai and the chancellor Maupeou, after Choiseul's downfall. His administration of the department of foreign affairs was disgraceful to France, which, under him, degenerated from the high diplomatic character she had hitherto sustained. He boasted of having brought about the revolution of Sweden in 1772, which now is made a matter of reproach to him. At the accession of Louis XVI, he was removed from the ministry. His place was supplied by the count of Vergennes, in 1774. D' A. was hated by the queen, was exiled in 1775, and died in banishment in his 80th year.

AILSA, or **ELSA**; a small, rocky island in the Frith of Clyde, near the W. coast of Scotland, of a conical form. It is a conspicuous object, 940 feet high, 7 miles from the shore, about 2 miles in circumference; lon. 5° 8' W., lat. 55° 18' N. Innumerable sea-fowl, many of which are good for the table or valuable on account of their feathers, frequent it; a few rabbits and goats live on its sterile surface. A ruinous castle stands on its summit, and is useful as a sea-mark. Excellent banks, well stocked with fish, surround it.

AINOS, or **AINUS**; the aborigines of Jesso and Saghalin, commonly called *wild Kuriles*, and supposed to be covered with hair in unnatural profusion. They are nearly black, and resemble the Kamtschadales, but have more regular features. The Chinese and Japanese say that they have immense beards; captain Broughton, who anchored at Endermo harbor, in Jesso, in 1797, remarks, that the bodies of the men are covered with long black hair; and Krusenstern, the Russian navi-

gator, mentions that a child of this description was seen in 1805, but that the parents had no such characteristics, and he denies that it is general. Other testimony, e. g. that of the early missionaries at Japan, seems to confirm this peculiarity of the A. The women are very ugly. The A. are of a mild, liberal disposition; their manners, however, are very little known. Polygamy is practised among them. Agriculture they know very little of. They fatten bears for winter provision. The A. were formerly independent, but are now in subjection to the Japanese.

AINSWORTH, Dr. Henry, an Englishman, distinguished himself, about 1590, among the Brownists. His knowledge of Hebrew, and his annotations on the Holy Scriptures, gained him much reputation. He died about 1629, in Amsterdam. He is said to have restored to a Jew a valuable diamond which he had lost. The only compensation which he asked was a conference with some Jewish rabbies on the prophecies of the Old Testament relating to the Messiah. The Jew promised to bring it about, but, failing of success, is said to have poisoned A. through shame and vexation.

AINSWORTH, Robert, born at Wood yale, in Lancashire, 1660, was master of a boarding-school at Bethnal-Green, whence he removed to Hackney and other places in the neighborhood of London. After acquiring a moderate fortune, he lived privately till 1743, when he died. He wrote the well-known Latin and English Dictionary, published in 1736; and in 1752, the fourth edition, under the care of Dr. Ward and William Younge, was enlarged to 2 vols. folio. Many editions with improvements have followed.

AIUO; a group of 16 islands in the eastern seas, off the N. coast of Waggiou, and surrounded by a reef 50 miles in compass, which is penetrated by a deep channel on the north-west side. Aiou Baba is the largest, about 5 miles in circuit, 500 feet high, lon. 128° 25' E., lat. 0° 32' N. Fish, turtle and tropical fruits abound in these islands. They have some trade with the Chinese.

AIR (Greek, *αἴρ*; Latin, *aër*), in natural philosophy, is that fluid, transparent substance which surrounds our globe, reaching to a considerable height above its surface, perhaps 40 miles; and this ocean of air is the great laboratory in which most of the actions of life go on, and on the composition of which they depend. Though invisible, except in large masses, without smell or taste, yet it is a sub-

stance possessing all the principal attributes of matter; it is impenetrable, ponderable, compressible, dilatable, perfectly elastic, and its particles are operated on like those of other bodies, by chemical action. To prove the impenetrability of the air, a very simple experiment is sufficient. Plunge a glass receiver perpendicularly into water, after having put under the receiver a piece of cork. However deep you may plunge the vessel, the water never reaches the top of it, though it diminishes the volume of the air; the liquid, therefore, cannot penetrate the air. The cork serves to show how high the water rises. In fact, the most common occurrences give constant proofs of the impenetrability of the air, and the theory of sailing, of windmills, &c. is based on that property of this fluid. (See *Wind*.) To prove that the air is ponderable, it is only necessary to weigh a large balloon, first empty, and afterwards filled with air. It has been found, that 100 cubic inches of air, very dry, taken at the temperature of 60°, and under the barometrical pressure of 30 inches, weighs 30.5 grains; and this weight is to that of water as 1 to 770. Galileo first discovered that air is ponderable, though several preceding philosophers seem to have had some suspicion of the fact. (See *Galileo, Torricelli, Barometer*.) In consequence of this quality of air, the atmosphere which surrounds us exerts a pressure on all points of the globe proportionate to its weight; this is the cause of the rise of liquids in sucking-pumps, siphons and the barometer. To show this pressure, plunge the orifice of an exhausted tube, closed at the other end, into a liquid. The liquid, yielding to the pressure of the external air, rises in the tube till the weight of its column is equal to that of the atmospheric column. In this experiment water will rise 33 feet, and mercury 29 inches, provided the place where the experiment is tried is nearly on a level with the sea; for the height varies with the weight of the column of air, which diminishes in proportion as we ascend above the level of the sea. The height of the column of mercury in the barometer, therefore, affords a good means of determining the elevation of any given place. The weight of the column of air, which presses constantly on a man of middle stature, is equal to 32,343½ pounds. But this weight does no injury, because it is counterbalanced by the reaction of the fluids, which fill the interior cavities of the body. (See *Air-pump*.) That air is compressible, and

that the space which it occupies corresponds always to the pressure on it, has been shown by Mariotte. He took a bent glass tube, with legs of unequal length, exactly graduated; after having sealed the orifice of the shorter leg, he introduced a small quantity of mercury, sufficient to rise to an equal height in both legs. The air enclosed in the shorter leg then counterbalanced the atmospheric column. By raising the mercury in the longer leg to the height of 29 inches, the air in the shorter leg was compressed into half the space which it occupied at first. In other words, the weight of two atmospheres (the column of mercury being equal to one) compressed the air to this degree. Mariotte continued to pour mercury into the long leg, and found that the weight of 2, 3, 4, &c. atmospheres reduced the air confined in the shorter leg to $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. of its primitive volume. In repeating this experiment, it is necessary to give time to the caloric which is disengaged to pass off. It seems as if the compression of air would be indefinite, if we had sufficiently powerful means; but as yet we have only been able to reduce its volume to one eighth. (See *Compression, Air-gun*.) The dilatability of air consists in the tendency of a volume of confined air to occupy a greater space. In consequence, it presses equally in all directions on the sides of the vessel containing it, and this pressure increases or diminishes in proportion as the enclosed air is condensed or rarefied, provided the temperature remains the same. The dilatability of air has, according to the preceding experiment, no limits. A bladder, almost empty, will become inflated if placed in an exhausted receiver. Elasticity being the property of a body to resume its original form as soon as the force which changes it ceases, it is evident, from what we have said, that it is a property of air. The different applications made of air in the different branches of art are so various and numerous, that we cannot possibly enumerate them. Of the chemical properties of air, it will be sufficient to mention the following: the ancients believed it a simple body, one of the four elements; modern chemists have discovered that it is composed of two bodies, apparently elementary,—oxygen and azote. The most accurate experiments have shown that this fluid, taken from different parts of the globe, and even at a great height, is composed of 21 parts of oxygen, 78 of azote, 1 part of carbonic acid, and some

atoms of hydrogen. The air refracts the rays of light, and its power of refraction is in the ratio of its density. (See *Refraction*.) It is capable of acquiring electricity, and it refuses, when very dry, a free passage to the electricity which tends to escape from electrified bodies. (See *Electricity*.) When subjected to great heat or cold, it is dilated or condensed, but undergoes no change of properties. If it is suddenly compressed, much heat is disengaged, with a bright light. It enters bodies through the most minute pores, and adheres to them strongly; coal, particularly, absorbs a great quantity of air. (See *Carbon*.) Water and all liquids always contain it, and it can only be expelled by a strong heat. Almost all combustible bodies decompose it at a high temperature, which varies with the different substances. They absorb its oxygen with the disengagement of more or less caloric and light, and form acids or oxydes: phosphorus, however, combines at a low temperature with the oxygen and azote of the air, and produces, with the former, phosphorous acid; with the latter, phosphureted nitrogen: the moisture of the air and the melting of the phosphorus favor these combinations. When the air is brought into contact with animal and vegetable substances, it changes them immediately, particularly if it is moist, and gives to some of them acid properties; it bleaches flax, hemp, silk, and increases the brilliancy of many colors. It is indispensable to the life of all organic beings; animals respire it incessantly, and decompose it; a part of its oxygen is transformed into carbonic acid, and this combination produces caloric, which contributes principally to the preservation of animal heat. (See *Respiration*.) Vegetables imbibe the carbon, which the carbonic acid, diffused through the air, contains. The air is the agent of combustion; the particles of bodies combine with its oxygen, and evolve heat and light. (See *Combustion*.) Finally, the air is the principal medium of sound. (See *Acoustics*.) For further information, see the articles *Atmosphere*, *Gas* and *Combustion*.

Air, in painting, deserves the most accurate study of the artist, particularly of the landscape painter, as it is the medium through which all objects are seen, and its density or transparency determines their appearance, both in respect to size and color. It softens the local colors, and renders them more or less decided or characterized, producing what

is technically called *tone*. The appearances produced by the interposition of the air differ with the climate, the season, and the time of the day; and landscape painters, who, in other respects, are not masters, have given the greatest charm to their pictures by a happy imitation of these appearances, even where the objects painted possessed in themselves very little attraction. Hackert, a German, who was a long time painter to the late king of Naples, excels, perhaps, in this branch of art, all modern painters. His views on this subject are given in his life by Göthe.

Air, fixed. (See *Gas*.)

Air, in music (in Italian, *aria*), at the present day, means a continuous melody, in which some lyric subject or passion is expressed. It was originally opposed to the irregular declamation of recitative, or the more staid action of choral music. Saumaise regards the term as derived from the Latin *aëra*. The air appertained, consequently, to measured music, and, whether constituted of one or of more voices, this measured style (if not choral) was denominated *air*. But in modern days, by way of distinction, the lyric melody of a single voice, accompanied by instruments, is its proper form of composition. Thus we find it in the higher order of musical works; as in cantatas, oratorios, operas, and also independently, in concertos. It should be constituted of euphonic simple lyric strains. An air formerly supposed as its ground-work a particular state of feeling or emotion, of a certain duration, expression and interest, to which the recitative is generally preparatory. Formerly, too, as essential to an air, a symphony, expressing the burden of the stanzas or couplets of the song (*ritornello*, or refrain), was introduced as tributary to the leading melody, which was followed by another and less elaborate part, forming the antithesis, to which was subsequently added a repetition of the first part. Since the days of Gluck and Mozart, these have declined, and other forms have been adopted, particularly by Mozart, more conformable to poetry, and more expressive of the sentiments and situation of the singer. Still Mozart could not entirely withstand the prevailing taste, with reference to which he produced numerous bravura airs, not always in character, yet not wanting in expression and effect. Another form of airs are the *cavatins* (or single strains), lately introduced by the Italians, and calculated to add grace and embellishment

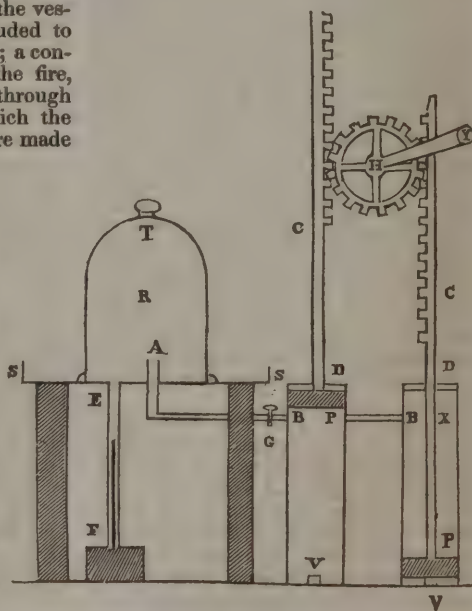
to the song. At the present day, the Germans either adopt this or make use of other forms, as the subject may require.—*Arietta* signifies a short, less elaborate air, designed to express a more simple and transient emotion.—*Arioso* is also applied to music resembling the aria, and is inserted in single lyrical passages to vary the recitative.

AIR-GUN; an instrument for the projection of bullets by means of condensed air. The ancients were acquainted with the principles of its construction, and an instrument of this description was invented by Ctesibus of Alexandria, who flourished about 120 B. C. The first modern account of an air-gun, which we meet with, is in the *Éléments d'Artillerie* of David Rivaux, preceptor to Louis XIII of France.

AIR-PIPES; a recent invention for the ventilation of ships by means of the rarefying power of heat. Mr. Sutton, a brewer of London, is the inventor. If the usual aperture to any fire be closed up in front, and another be introduced by the side of the fire place, it will attract the current of air into that direction; and the coppers, or boiling-places of ships, are well known to be placed over two holes, separated by a grate, the one for the fire, the other for the ashes; there is also a flue from the tops for the discharge of smoke: Mr. Sutton's pipes, now, are introduced into the ash-place, and carried through the hold to any part of the vessel. The two holes before alluded to are closed up by strong iron doors; a continued draught of air supplies the fire, and creates a salutary circulation through any part of the vessel into which the pipes may be directed. They are made either of copper or lead.

AIR-PUMP; a machine for the purpose of withdrawing the air from some vessel or cavity, and thereby making what is called a *vacuum*. It is one of the most curious and useful of philosophical instruments. By experiments with it, the weight, elasticity and many other properties of air may be shown in a very simple and satisfactory manner.—Let R be the section of a glass bell, closed at the top T, but open at the bottom, and having its lower edge ground smooth, so as to rest in close contact with a smooth brass plate, of which SS is a section. This glass is called a *receiver*, because it

receives and holds substances on which experiments are to be made. If a little unctuous matter be rubbed upon the edge of the receiver R, and it be pressed with a slight circular motion upon the plate SS, it will be brought into such close contact as to be air-tight. In the middle is an opening A, which communicates by a tube AB with a hollow cylinder or barrel, in which a solid piston P is moved. The piston-rod C moves in an air-tight collar D, and at the bottom of the cylinder a valve V is placed, opening freely outward, but immediately closed by any pressure from without. There is thus a free communication between the receiver R, the tube AB and the exhausting barrel BV. This communication extends in the same manner to a second similar barrel XV. When the piston CP is pressed down, and has passed the opening at B, the air in the barrel BV will be enclosed, and will be compressed by the piston. As it will thus be made to occupy a smaller space than before, its density, and consequently its elasticity, will be increased. It will therefore press downwards upon the valve V with a greater force than that by which the valve is pressed upwards by the external air. This superior elastic force will open the valve, through which, as the piston descends, the air in the bar-



rel will be driven into the atmosphere. If the piston be pushed quite to the bottom, the whole air in the barrel will be thus expelled. The moment the piston begins to ascend, the pressure of the air from without closes the valve completely. None of the external air can enter; and, as the piston ascends, a vacuum is left beneath it; but, when it rises beyond the opening B, the air in the receiver R and the tube A B expands, by its elasticity, so as to fill the barrel B V. A second depression of the piston will expel the air contained in the barrel, and the process may be continued at pleasure. The communication between the barrels and the receiver may be closed by a stop-cock at G. It is evidently only in consequence of the elasticity of the air that it expands and fills the barrel, diffusing itself equally throughout the cavity in which it is contained. The operation of the machine depends, therefore, on the elasticity of the air, and it is obvious that a perfect vacuum cannot be formed by it in the receiver, as only a part of the air is each time expelled, and a portion must always remain after each depression of the piston. The degree of rarefaction produced by the machine may, however, be easily calculated. Suppose that the barrel contains one third as much as the receiver and tube together, and, therefore, that it contains one fourth of the whole air within the valve V. Upon one depression of the piston, this fourth part will be expelled, and three fourths of the original quantity will remain. One fourth of this remaining quantity will in like manner be expelled by the second depression of the piston, which is equal to three sixteenths of the original quantity. By calculating in this way, it will be found that, after 30 depressions of the piston, only one 3096th part of the original quantity will be left in the receiver. The rarefaction may thus be carried so far that the elasticity of the air pressed down by the piston shall not be sufficient to force open the valve. To show how far the exhaustion has been carried at any particular point of the process, a barometer-gauge is connected with the machine. This is a glass tube, opening at E into the receiver, and at F immersed in a cistern of mercury. As the rarefaction proceeds, the mercury rises from the pressure of the external air, and indicates how far this pressure exceeds that from within the receiver, that is, the degree of exhaustion. Both pistons are worked by the wheel H and

winch Y, by means of the rack or tooth-work on the piston-rods. When one piston is raised, the other is depressed. The winch is then turned in the opposite direction, and the piston which had been raised is depressed, and the other raised. When the rarefaction of the air within the barrels is considerable, the pressure of the atmosphere upon each piston is not resisted from within, and therefore opposes its ascent. But this pressure is not felt by the operator, as the pressure upon one piston counterbalances that upon the other. The elasticity of the air is proved by the action of the machine. Its pressure is proved by the great firmness with which the receiver is pressed upon the plate S S during the rarefaction of the air within. If any animal is placed beneath the receiver, and the air exhausted, he dies almost immediately; a lighted candle under the exhausted receiver immediately goes out. Air is thus shown to be necessary to animal life and to combustion. A bell, suspended from a silken thread beneath the exhausted receiver, on being struck, cannot be heard. If the bell be in one receiver, from which the air is not exhausted, but which is within an exhausted receiver, it still cannot be heard. Air is therefore necessary to the production and to the propagation of sound. A shrivelled apple or cranberry, placed beneath an exhausted receiver, becomes as plump as if quite fresh. They are thus shown to be full of elastic air. A great variety of experiments may be made, which are very interesting, but too numerous to be described.—The air-pump was invented by Otto de Guericke, burgomaster of Magdeburg, about the year 1654. Modifications and improvements were afterwards made by Boyle, Hawksbee, Morton and many others. It is made in various forms, one of the simplest of which is that already described.

AIR-TRUNK; a contrivance by Dr. Hales to prevent the stagnation of putrid effluvia in jails, or any apartments where many people are collected. It consists of a long, square trunk, open at both ends, one of which is inserted into the ceiling of the room, and the other extends a considerable distance beyond the roof. Through this trunk a continued circulation is carried on, because the putrid effluvia are much lighter than the pure atmosphere. Dr. Keil estimates these effluvia arising from one man in 24 hours at not less than 39 ounces. These

trunks were first tried in the English house of commons, where they were 9 inches wide within, and over the court of king's bench, where they were 6 inches wide.

Aissé (Demois.) well known for her romantic adventures and unhappy fate, born in Circassia, 1689, was purchased by the count de Ferriol, the French ambassador at Constantinople, when a child of 4 years, for 1500 livres. The seller declared her to be a Circassian princess. She was of great beauty. The count took her with him to France, and gave her an education, in which nothing was neglected but the inculcation of virtuous principles. Her disposition was good, but her life immoral. She sacrificed her innocence to the solicitations of her benefactor. On the other hand, she resisted the splendid offers of the duke of Orleans. Of her numerous suitors, she favored only the chevalier Aidy. This love decided her fate. Aidy had taken the vows at Malta; he wished to disengage himself from them; but his mistress herself opposed the attempt. The fruit of her love was a daughter, born in England. She was subsequently a prey to the bitterest remorse; she resisted her passion in vain, and lived in a continual struggle with herself, which her weak health was unable long to sustain. She died 1727, thirty-eight years old. Her letters are written in a pleasant and fluent strain, and exhibit a lively picture of the author's feelings. They contain many anecdotes of the prominent personages of her times. They first appeared with notes by Voltaire, subsequently with the letters of Mesdames de Villars, Lafayette, and de Tencin, 1806, 3 vols.

Aix (among the Romans, *Aque Sextie*), in the French department of the mouths of the Rhone, on the river Arc, contains 21,960 inhabitants, is the seat of an archbishop, a royal court of appeals and chamber of commerce, a school of theology and jurisprudence, a college, a considerable library, a learned society and a museum. Several manufactures are carried on in the city, principally of cotton; they are, however, on the decline. The warm baths, too, are less visited than formerly. In the church of the Minorites, Frederic the Great erected a monument to the marquis d'Argens. This city has the largest limits of any city in France. The numerous families residing on the great gardens around the city are counted among the population, as is customary in

France and Italy. This is the reason that the accounts of the population of the southern cities of Europe seem so frequently exaggerated to strangers, unacquainted with the circumstance. Aix derives its principal support from the culture and manufacture of silk, in its extensive district, which contains marshy, sandy, calcareous and stony soils, together with the cultivation of the olive, and of the fruits of the south, which are well paid for by the luxury of northern France. Lon. 5° 97' E.; lat. 43° 32' N.

AIX LA CHAPELLE (in German, *Aachen*); capital of the district of the same name, in the Prussian grand duchy of the Lower Rhine; 51° 55' N. lat.; 5° 54' E. lon. The district contained, in the year 1825, upon 1550 square miles, 336,025 inhabitants, among which were 324,453 Catholics, 9686 Protestants, and 1891 Jews. The city itself contains 2732 houses, and, in 1822, had 34,584 inhabitants. It lies between the Rhine and the Meuse, at a distance of about 37 miles from the former and 18 from the latter. It is very pleasantly situated, in a fine vale, surrounded by beautiful hills. There are traces of its existence under the government of the Romans, to whom it was known as early as the time of Cæsar and Drusus; Pliny mentions it under the name of Vetera. Here, according to some writers, the emperor Charlemagne was born, A. D. 742; here he died, A. D. 814. The extensive privileges which he and other emperors conferred on this imperial city, gave rise to the saying, that "the very air of A. made free even the outlaws of the empire." 55 emperors have been crowned in this city, and the imperial insignia were preserved here till the year 1795, when they were carried to Vienna, and are now in the imperial treasury. Its citizens, throughout the empire, were exempt from feudal service, both in peace and in war; from attachment of their goods and imprisonment; from tolls and taxes levied on the property of travelling merchants, &c. By the peace of Luneville, concluded Feb. 9, 1801, which separated the left bank of the Rhine from Germany, the city was transferred to France, and remained, till the overthrow of Napoleon, the chief town of the department of the Roer. To its French name, *Aix*, the term *la Chapelle* has been added in order to distinguish it from other towns of the same name. The market-place of A. is adorned with a statue of Charlemagne, in bronze. On the spot where, in ancient times, a

Roman castle stood, the kings of the Franks built a royal castle, in German *Pfalz*. This was destroyed, A. D. 882, by the Normans, restored by the emperor Otho III, 993, and used in the 14th century as the town-house. This building contains many relics of old German art, the hall where the emperors were crowned, the bust of Napoleon and his first empress painted by David, a tower of Roman origin, &c. The minster was erected between the years 796 and 804, by the emperor Charlemagne, and was ornamented with great splendor. In the middle rises the monument of Charlemagne, with the simple inscription, *Carolo Magno*. Above it hangs, suspended by a chain, a colossal crown of silver and gilt copper, a donation of Frederic I, which serves as a chandelier for 48 candles. Here is to be seen the chair of white marble, on which several emperors have sat at the time of their coronation. It was formerly overlaid with gold. The church of the Franciscans is distinguished by a beautiful picture of Rubens, the *Descent from the Cross*, which was carried to Paris, but has been brought back. The inhabitants are for the most part Catholics, many of whom are actively engaged in manufactures. The cloths of A. are famous on the continent of Europe. A manufacture of needles, established about the middle of the 16th century, by Gauthier Wolmar, formerly employed more than 15,000 workmen, but in the year 1808 only 8000. A. contains 15 charitable institutions; it has 7 mineral springs, 6 of them warm. The most famous is the imperial spring, the vapor of which, if confined, deposits sulphur. The rooms for bathing are excellent, with baths from 4 to 5 feet deep, in massive stone, after the old Roman fashion; the greater part have bed-chambers with chimneys. At a distance of 500 paces from A. lies the village of Burtscheid, which also contains hot springs. The upper springs are in the village itself, the lower in the valley, in the open air. The water is useful for washing and dyeing cloths. The upper springs contain no hepatic gas, and deposit no sulphur; in this respect they differ from the lower, and those of A. There are also in Burtscheid manufactures of broad-cloth, cassimere and needles. The coal-mines and pyrites in the surrounding country account for the hot-wells of A. and B. The names of several streets, Alexander, Francis, Wellington street, remind us of the congress of A. in 1818.

(See the article *A. Congress at.*) The history and description of A. with B. and Spa, by Aloys Schreiber, Heidelberg, 1824, is the best guide-book for travellers on the Rhine.

AIX LA CHAPELLE, congress at. In modern politics, the congress at A. in Oct. and Nov. 1818, is of high importance. The principal measures determined on at this meeting of the great powers which had conquered Napoleon were the following: 1. The army of the allies, consisting of 150,000 English, Russian, Austrian, Prussian and other troops, which, since the second peace at Paris, had remained in France, to watch over its tranquillity, was withdrawn, after France had paid the contribution imposed at the peace of 1815. The king of France was then admitted into the holy alliance. Thus the congress of A. restored independence to France. 2. The 5 allies, the emperors of Austria and Russia, and the kings of Great Britain, France and Prussia, issued at this time the famous declaration of Nov. 15, 1818, a document of very dangerous tendency, too indefinite to settle any of the important political questions then pending, but full of the personal views and feelings of the monarchs, and the legitimate offspring of the holy alliance concluded Sept. 26, 1815, at Paris. The friends of absolute government in Europe, who confound the idea of the reigning family with that of the state and the government, admired the paternal professions of the sovereigns in this instrument, which is principally of a religious character; but sagacious politicians and the friends of justice foresaw all the evils which it afterwards produced. Its vagueness admitted of a great latitude of construction, and it was soon followed by a breach of the law of nations in the invasion of Italy and Spain under the newly-declared *droit d'intervention armée*, promulgated at Laybach, a direct consequence of the doctrines advanced at A. The holy alliance, with all the declarations of the succeeding congresses at Troppau, Laybach and Verona, affords the first instance of an avowedly *personal* alliance between many monarchs to maintain certain principles of government, and attack every nation within their reach which adopts a different political creed. After the termination of the struggle against Napoleon, in which princes and people were firmly united, the former anxiously separated their interests from those of the latter, and at the congress at A. they openly manifested the designs

which every succeeding congress has developed more clearly. (See *Holy Alliance*.) The king of France, at this congress, became a member of the holy alliance only in his personal character, not as the constitutional chief of the French government, following the example of the present king of England, then prince regent. In fact, the accession of these two sovereigns was only to avoid appearing directly opposed to the alliance. 3. From the congress of A. are to be dated all the decisive measures of the German governments against the liberal spirit which had spread among their subjects since the wars with Napoleon. In A. it was first seen how unwilling the king of Prussia was to fulfil his promises of liberal institutions, and how anxiously Austria desired to suppress whatever tended to give force to public opinion, to secure the rights of the people, or promote the cause of representative government. At A. Mr. Stourdza, a Russian subject, published his influential work, *Mémoire sur l'État actuel de l'Allemagne*. The congress at Carlsbad (q. v.) was an immediate consequence of the congress at A. It had reference, however, only to Germany. History will point out the period of these congresses as the æra of violent political bigotry, corresponding to the former ages of religious bigotry in its principles as in its measures. (See M. de Pradt's *L'Europe après le Congrès d'Aix la Chapelle*, 8vo. Paris, 1819, and Mr. Schöll's *Histoire des Traités de Paix*, with his *Archives politiques*, 1818-19.) For the congress at A. in 1748, see the following article.

AIX LA CHAPELLE, treaties of peace concluded at. The first, May 2d, 1668, put an end to the war carried on against Spain by Louis XIV., in 1667, after the death of his father-in-law, Philip IV., in support of his claims to a great part of the Spanish Netherlands, which he urged in the name of his queen, the infanta Maria Theresa, pleading the *jus devolutionis*, prevailing among private persons in Brabant and Namur. Condé had already conquered Franche-Comté, and Turenne had taken 10 fortresses, when the triple alliance, concluded by de Witt and sir William Temple (see *Witt and Temple*), determined France to make peace with Spain, on conditions which were agreed upon at St. Germain with the allies, and ratified at A. Spain had the option to surrender either the Franche-Comté or the fortified places in the Netherlands. She chose to give up the latter.

Thus France obtained a part of the ancient Burgundy, the Spanish fortresses Lille, Charleroi, Binch, Douai, Tournai, Oudenarde, and six others, together with their appendages. (See Schöll, *Hist. des Traités*, &c. i. 331.) The second peace of A., Oct. 18, 1748, terminated the Austrian war of succession (see *Austria*), in which the parties were at first Louis XV of France and the empress Maria Theresa, and, in the sequel, Spain on one side, and Great Britain, Maria Theresa and Charles Emanuel, king of Sardinia, on the other. In this war, the United Netherlands were engaged as allies of Great Britain and Austria, Modena and Genoa as allies of Spain. Maria Theresa surrendered to Philip, infant of Spain, Parma, Piacenza and Guastalla. Thus the fourth sovereign line of the house of Bourbon, that of Parma, (since 1817 established in Lucca), took its origin. On the whole, the state of possession before the war was restored, the pragmatic sanction and the succession of the house of Hanover in Great Britain guaranteed, and Silesia and Glatz secured to the king of Prussia. A Russian auxiliary army of 37,000 men, under prince Repnin, in the pay of the naval powers, approaching, in the spring of 1748, from Bohemia to the Rhine, accelerated the conclusion of the peace. The plenipotentiaries of France, Great Britain and the States General, in a secret session, April 30, 1748, signed the preliminaries, four copies of which were presented to the other powers engaged in the war, and signed by them separately. Charles Stuart, the eldest son of the pretender, protested, at Paris, July 16, against the exclusion of his father, who called himself James III., from the British throne. The above-named three powers first signed, in like manner, the definitive peace, whereupon Spain, Genoa and Modena, July 20, and Austria, July 23 (by her plenipotentiary, count, afterwards prince Kaunitz), did the same. (See Schöll. i. 411, et seq.)

AJACCIO, or **AJAZZO**, the capital of Corsica, contains 6570 inhabitants. It has a harbor, protected by a citadel, lying to the north of the gulf of the same name, on the western coast of the island, at the confluence of the rivers Terignano and Restonico. The entrance into the harbor is rendered unsafe by projecting rocks. A. is the birth-place of Napoleon, his brothers and sisters. It is the handsomest city of Corsica, and the seat of a bishop. In the commercial world, it is famous for its coral and anchovy fishe-

ries; less so, in the learned world, for its academy. Lon. $8^{\circ} 44'$ E.; lat. $41^{\circ} 59'$ N.

AJALON; a town rendered memorable by Joshua's victory over the five Canaanitish kings, and still more so by the extraordinary circumstance of the miraculously lengthened day.

AJAN; a coast and country of Africa, which has the river Quilmanci on the south, the mountains from which that river springs on the west, Abyssinia and the straits of Babelmandel on the north, and the Indian ocean on the east. The coast abounds with all the necessities of life, and has plenty of very good horses.

AJASSALUCK; the Turkish name for a village on or near the site of the ancient Ephesus. The whole place seems to have been built from the ruins of Ephesian grandeur. Tamerlane encamped here, after having subdued Smyrna, in 1402.

AJAX (Greek, *Ἀἴας*). Among the Grecian chiefs who fought against Troy were Ajax Oileus and Ajax Telamonius. The former, the son of Oileus and Etiope, a Locrian, was called *the less*. He accompanied the expedition to Troy, because he had been one of the suitors of Helen. In the combat, his courage sometimes degenerated into inconsiderate fury. Examples of this are given by the poets who succeeded Homer. When the Greeks, they say, had entered Troy, Cassandra fled to the temple of Pallas, from whence she was forced, and dragged along, bound as a captive. Some accounts add, that she caught hold of the statue of the goddess, and that A. dragged her away by the hair; others, that he violated the prophetess in the temple of the goddess. Ulysses accused him of this crime, when he exculpated himself with an oath. But the anger of the goddess at last overtook him, and he perished in the waves of the sea. The other A. was the son of Telamon, from Salamis, and a grandson of Æacus. He, also, was a suitor of Helen, and sailed with 12 ships to Troy, where he is represented by Homer as the boldest and handsomest of the Greeks, after Achilles. He understood, not how to speak, but how to act. He was frank, and full of noble pride. After the death of Achilles, when his arms, which Ajax claimed on account of his courage and relationship, were awarded to Ulysses, he was filled with rage, and, driven by despair, threw himself on his sword.

AKBAH; a celebrated Saracen conqueror in the first century of the Hegira, who

overran Africa from Cairo to the Atlantic ocean. A general revolt among the Greeks and Africans recalled him from the west, and occasioned his destruction. He founded Cairoan, in the interior of Africa, to check the barbarians and secure a place of refuge to the families of the Saracens.

AKBAR, or **AKBER**, Mohammed, sovereign of India; the greatest Asiatic prince of modern times. He was born at Amerket, in the year of the Hegira 949 (1542 of the Christian æra), and, after the death of his father, ascended the throne, at the age of 13, and governed India under the guardianship of his minister, Beyram. His great talents were early developed. He fought with distinguished valor against his foreign foes and rebellious subjects, among whom was Beyram himself. His government was remarkable for its mildness and the greatest tolerance towards all sects. Though compelled, by continued commotions, to visit the different provinces of his empire at the head of his army, he loved the sciences, especially history, and was indefatigable in his attention to the internal administration of his empire. He instituted inquiries into the population, the nature and productions of each province. The results of his statistical labors were collected by his minister, Abul Fazl, in a work, entitled *Ayeen Akberi*, printed in English, at Calcutta, 1783—86, 3 vols., and reprinted in London. A. died, after a reign of 49 years, in 1607 (1604, A. D.) His splendid sepulchral monument still exists near Agra, with the simple inscription, *Akbar the Admirable*. He was succeeded by his son Selim, under the name *Djhangir*.

AKENSIDE, Mark, a poet and physician, was born in 1721, at Newcastle-upon-Tyne. His father, a butcher, of the Presbyterian sect, intended him for a clergyman, and placed him, at the age of 18, in the university of Edinburgh, to qualify him for that office. The taste of A. was not inclined to that profession, and he abandoned the study of theology for that of physic. Having received some assistance from the funds employed by the Dissenters in the education of young men intended for the ministry, he very honorably refunded the amount when he relinquished his theological studies. After 3 years residence at Edinburgh, he went to Leyden, and in 1744 became doctor of physic. In a thesis, which he published on receiving his degree, *De Ortu et Incremento Fetus Humani*, he proposed a new

theory, which has been since confirmed and received. In the same year, he published the *Pleasures of Imagination*, which, however, he is said to have written during his residence at Edinburgh. In the following year, he published a collection of odes, and the epistle to Curio, a satire on Pulteney. After having unsuccessfully attempted the practice of his profession at Northampton and Hampstead, he was invited to London by his friend Mr. Dyson, from whom he received a pension of £300 a year. Here he became a fellow of the royal society, was admitted into the college of physicians, and read the Gulstonian lectures in anatomy, but never obtained a very extensive practice. While at London, he wrote little poetry, but published several medical essays and observations. His discourse on the dysentery (1764) has been much admired for the elegance of its Latinity. He died 1770, in the 49th year of his age, of a putrid fever. A. was a man of religion and strict morals; a philosopher, a scholar and a fine poet. His conversation is described to have been of the most delightful kind, learned and instructive, without any affectation of wit, cheerful and entertaining. Yet his pride, insolence and irascibility involved him in frequent disputes, and prevented his success in the practice of his profession. His favorite authors were Plato and Cicero among the ancients, and Shaftesbury and Hutchinson among the moderns. The odes of A. do not entitle him to a very high rank in lyric poetry; his epistle to Curio is written in a tone of vigorous and poignant satire. He is particularly distinguished as a didactic poet, and has left in his *Pleasures of Imagination* one of the most pleasing didactic poems in our language. The periods are harmonious, the cadence graceful, and the measure dignified. It is replete with elevated sentiments, with images of poetic beauty and high philosophy. The sentences are sometimes extended to too great length, splendid imagery too much accumulated, and the thought sometimes too thickly overlaid with words. These faults he endeavored to correct in the new edition, in which many other changes are introduced; but the original will always be more read and admired.

AKERBLAD, John David; by birth a Swede. When very young, he accompanied the Swedish embassy to Constantinople in the capacity of secretary. The leisure which his station afforded, he employed in travelling through the East.

He visited Jerusalem and the Troad in 1792 and 1797; and has offered some suggestions respecting the situation of the city of Troy, in the German translation of Le Chevalier's travels, which display both the classical scholar and the learned orientalist. For some time, about the year 1800, he lived in Göttingen, and then went to Paris, as Swedish chargé d'affaires. Discontent at the changes in his native country is said to have induced him to throw off all connexion with Sweden, and retire to Rome, where he received from the duchess of Devonshire, and other friends of literature, the means of living in literary leisure. He died at Rome, Feb. 8, 1819. His writings display a great knowledge of the oriental and western languages, which he could speak as well as interpret. Among them are his *Lettre à M. Silvestre de Sacy, sur l'Écriture cursive Copte* (*Mag. Encyc.*, 1801, tom. v.), the *Lettre à M. de Sacy, sur l'Inscription Egyptienne de Rosette* (*id.* 1802, tom. iii.), his famous explanation of the inscriptions on the lions at Venice, *Notice sur deux Inscriptions en Caractères Runiques, trouvées à Venise et sur les Varaniges, avec les Remarques de M. d'Ausse de Villoison*. Equally important, both for the knowledge of ancient writings and of inscriptions, is the *Inscrizione Greca sopra una Lamina di piombo Trovato in un Sepolero nelle Vicinanze d'Atene* (Rome, 1813, 4to.), in improving which he was employed when surprised by death. The last of his works, that appeared in print, was a *Lettre sur une Inscription Phénicienne trouvée à Athènes* (Rome, 1814, 4to.), addressed to count Italinsky. The national institute at Paris chose him a corresponding member of their society. He lies buried near the pyramid of Cestius, at Rome.

AKERMAN, or ACKERMAN (the ancient Julia Alba and Hermonoclis); a town in Bessarabia, a province of Russia, on the coast of the Black sea, at the mouth of the Dniester, 65 miles S. E. of Bender, 68 S. W. of Otchakow; lon. 30° 44' E.; lat. 46° 12' N.; pop. stated very differently; formerly at 20,000, more recently at 8000. It contains a number of mosques, one Catholic and one Armenian church, and has some trade. A. has recently acquired some celebrity by the treaty between Russia and Turkey, there concluded, Oct. 6, 1826, in which the latter power agreed to the 82 points of the Russian ultimatum. This treaty is a supplement to the peace of Bucharest. The porte ceded to the emperor Nicholas all

the fortresses in Asia of which it had previously demanded the restoration, and acknowledged the political organization (if we dare use this expression for so rude a state of politics) which Russia had determined on for Servia, Moldavia and Walachia. But the treaty was not executed till 1827, and then not to the satisfaction of Russia. This furnished the ostensible reason of the present war between the two great eastern powers. (See *Russia*, and *Ottoman Empire*.)

ALABAMA, one of the U. States; bounded N. by Tennessee, E. by Georgia, S. by Florida and the gulf of Mexico, and W. by Mississippi; lon. 85° to $88^{\circ} 30'$ W.; lat. $30^{\circ} 10'$ to 35° N.; 330 miles long, from N. to S., and 174 from E. to W.; square miles, about 51,000; pop. in 1810, less than 10,000; in 1816, 29,683; in 1818, 70,544; in 1820, by the imperfect census as first returned, 127,901; by the census as subsequently completed, 144,317; in 1827, 244,041, of whom 152,178 were whites, 93,308 slaves, and 555 free persons of color. The last estimate of the number of Indians within the territory of the U. States, by the war department, in 1829, states that there are 19,200 Indians in the state of A.—The number of counties into which this state was divided in 1820, was 24; and in 1828, 36. Tuscaloosa is the present seat of government. Cahawba was formerly the capital. Mobile is the principal port. (q. v.)—The principal rivers are the Alabama, Tombeckbee, Mobile, Black-Warrior, Coosa, Tallapoosa, Tennessee, Chatahoochee, Perdido, Cahawba and Conecuh.—The southern part of the state, which borders on the gulf of Mexico and Florida, throughout a space 50 or 60 miles wide, is low and level, covered with pine, cypress and loblolly; in the middle it is hilly, with some tracts of open land or prairies; in the northern part it is somewhat broken and mountainous. The Alleghany mountains terminate in the north-east part. The forest-trees in the middle and northern divisions are post, black and white oak, hickory, poplar, cedar, chestnut, pine, mulberry, &c.—The soil is various, but a large part of it is excellent. In the south it is generally sandy and barren; and a part of the high lands are unfit for cultivation. A large portion of the country which lies between the Alabama and Tombeckbee, of that part watered by the Coosa and Tallapoosa, and of that on the Tennessee, consists of very excellent land. On the margin of the rivers there is a quantity of cane bottom-land of great fer-

tility, generally from $\frac{1}{2}$ to $\frac{3}{4}$ mile wide. On the outside of this is a space which is low, wet, and intersected by stagnant water. Next to this river swamp, and elevated 10 or 15 feet above it, succeeds an extensive body of level land, of a black, rich soil, with a growth of hickory, black oak, post oak, poplar, dogwood, &c. After this come the prairies, which are widespreading plains, or gently-waving land, without timber, clothed with grass, herbage and flowers, exhibiting, in the month of May, the most enchanting scenery.—Cotton is the staple production, and is raised in great quantities. Other productions are maize, rice, wheat, rye, oats, &c. Iron ore is found in several places, and coal abounds on the Black-Warrior and Cahawba.—The climate in the southern part of the bottom-land bordering on the rivers, and of the country bordering on the Muscle shoals, is unhealthy. In the elevated country, the climate is very fine; the winters are mild, and the summers pleasant, being tempered by breezes from the gulf of Mexico.—The population of this state, from the time when the first settlement was commenced, has increased with remarkable rapidity. Occupying the valley of the Mobile and its tributary streams, the Alabama and Tombeckbee, its position, in an agricultural and commercial point of view, is highly advantageous; and from the fertility of its soil, and the value of its productions, it may be expected to become an important member of the Union.—The Cherokee Indians occupy the N. E. corner of the state, the Creeks the eastern part, and the Chickasaws and Choctaws some portions of the western.—Alabama originally belonged to the state of Georgia; in 1800, the country including the present states of Mississippi and Alabama was formed into a territory; the part of Florida between Pearl and Perdido rivers being taken possession of by the U. States in 1812, and annexed to this territory, emigration into it immediately commenced. During the years 1813 and 1814, it was harassed by the attacks of the savages, who were reduced to submission by general Jackson. In 1817, the western portion of the territory became the state of Mississippi, and the eastern the territory of Alabama, which, by an act of congress, March, 1819, was admitted into the Union as an independent state. By its constitution, adopted July, 1819, the legislative power is vested in two houses, chosen by universal suffrage.—Many of the settlers in this state are rich planters. Some of the lands were

sold for \$50 an acre in a state of nature. The fertility of the soil, the general salubrity and mildness of the climate, the great facilities for internal navigation and foreign commerce, sufficiently account for the rapid increase of its population.—For an account of the Yazoo lands, and the proceedings of the legislature of Georgia respecting them, see *Georgia*. For the constitution of A. see *Constitutions of the U. States*.

ALABAMA; a river which gives its name to the state so called; (see the preceeding article). It is formed by the junction of the Coosa and Tallapoosa, and, flowing S. S. W., unites with the Tombeckbee, 45 miles above Mobile bay, to form the river Mobile. From the junction to Clairborne, 60 miles, it is navigable at all seasons for vessels drawing 6 feet. From Clairborne to the mouth of the Cahawba, about 150 miles, the river has 4 or 5 feet of water. From the mouth of the Cahawba to the junction of the Coosa and Tallapoosa, the navigation generally continues good, the river affording 3 feet of water in the shallowest places. The river is subject to great variation by rising and falling.

ALABAMA; a tribe of Indians so called, which formerly inhabited the eastern side of the Mobile river.

ALABASTER (in Greek, ἀλάβαστρος; in Latin, *alabaster*), in mineralogy; (see *Gypsum*.) In sculpture; the common name, among ancient and modern artists, for gypsum and the calc-sinter of modern mineralogy. A. has a greater or less degree of transparency, according to its goodness; has a granular texture, is softer than marble, does not take so fine a polish, and is usually of a pure white color. In Europe, it is found near Coblenz in Germany; in the neighborhood of Cluny, in France; in Italy, near Rome. Some of the A. near this city is particularly celebrated for its whiteness and the size of its blocks, which are large enough for a statue of the size of life. There are, also, many quarries of the granular gypsum, which is used for the manufacture of plaster of Paris, in Nottinghamshire and Derbyshire, England. To prepare the plaster, the gypsum is burned and ground. Moulds and casts from statues and other sculptures are formed from this valuable material, and also a very strong cement for the use of the sculptor and mason, to form the close joints of marble; plasterers use it also much, particularly for mouldings and foliage. The ancients obtained large blocks of A. from Thebes (where was a town from which it received this name),

and used it for statues and columns. The various museums contain many vases and similar articles of A., for which the Romans often employed this material. They imported much from Cyprus, Spain and even Africa. They liked particularly to put their lamps in vases of transparent A., which gave an agreeable softness to the light. In the museums, several figures of ancient sculpture are preserved, the bodies of which are of A. and the heads of some other substance. A box, vase, or other vessel, to hold perfumes, formed of A. was called by the ancients *alabastrum*; Horace calls them *onychites*. The alabastrum is always among the attributes of the *Bathing Venus*. Oriental A. was the most sought after for the purpose of making these vessels.

ALACRANES; a range of hidden rocks, shoals and banks in the gulf of Mexico, near the coast of Yucatan. Lon. 90° W.; lat. 22° 36' N.

ALADAN, ALADA, or ALADINE ISLANDS, a cluster of small islands in the bay of Bengal, belonging to what is sometimes called the *Mergui Archipelago*, near the coast of Siam. They run from 9° 5' to 9° 40' N. lat., and are in 97° 52' E. lon.

ALAMANNI, Luigi; a famous Italian poet, born at Florence, in 1495, of one of the noblest and most distinguished families of the republic. His father was zealously devoted to the party of the Medici, and he himself stood in high favor with the cardinal Giulio, who governed in the name of pope Leo X; but, conceiving himself to have been injured, he joined a conspiracy formed against the life of the cardinal. The plan was discovered; A. fled to Venice, and, when the cardinal ascended the papal chair, under the name of Clement VII, he took refuge in France. But the misfortunes which befell this pope giving Florence an opportunity to become free, in 1527 A. returned thither. His country sent him on an embassy to Genoa. Here he became the friend of Andrew Doria, with whose fleet he went to Spain. Charles V soon after sailed in the same fleet from Spain to Italy, to arrange the affairs of Florence, and subject it to the Medici. After this new revolution, A., proscribed by the duke Alessandro, went to France, where the favors of Francis I retained him. Here he composed the greater part of his works. The king esteemed him so highly, that, after the peace of Crespy, in 1544, he sent him as ambassador to the emperor Charles V. A. discharged his office with great skill. He was held in like estimation by

Henry II, who also employed him in several negotiations. He followed the court, and was with it at Amboise, when he was attacked with the dysentery, which terminated his life. His principal works are a collection of poems, eclogues, psalms, satires, elegies, fables, &c., part in blank verse, the invention of which is contested with him by Trissino; *Opere Toscane*, a didactic poem; *La Coltivazione*, to which he is mostly indebted for his fame; *Girone il Cortese*, a heroic poem, in 24 cantos, from an old French poem of the same name; *La Avarchide*, an epic, in which he describes, in a few happy imitations of Homer, the siege of the city of Bourges (Avaricum,) likewise in 24 cantos; *Flora*, a comedy in *versi sdruccioli* (see *Rhyme*); and a number of epigrams. The writings of A. are recommended by ease, perspicuity and purity of style, but often want strength and poetic elevation.

A-LA-MI-RE, in music; an Italian method to determine the key of A, by its dominant, and subdominant, A E D. In the Guidonian scale of music, a-la-mi-re is the octave above a-re, or A in the first space in the base.

ALAN, or ALLEN, William, was born in Lancashire, in 1532. Being warmly attached to the Roman Catholic religion, he left England on the accession of Elizabeth; and, though he soon after returned, he lived in the greatest privacy, and finally fled to Flanders. He was, both during this concealment in England and his residence abroad, actively engaged in writing and distributing polemical tracts, and was one of the ablest advocates of Rome. He asserted the necessity of deposing Elizabeth, maintained that heresy absolved subjects from their allegiance, and recommended the invasion of England by the Spaniards. For these services he was created a cardinal, and continued to reside at Rome till his death, in 1594.

ALAND; a cluster of islands in the gulf of Bothnia; 59° 47' to 60° 32' N. lat., and 18° 47' to 21° 37' E. long. They contain 13,340 inhabitants, of whom more than 9000 belong to the principal island of the same name, which is 40 miles long and 30 broad. Above 80 of these islands and rocks are inhabited. They contain some good harbors. In 1809, this cluster of islands, together with Finland, was made over by Sweden to Russia. The government founded a city there, and fortified some spots. The ground is so stony, and the soil so thin, that the crops sometimes wither in hot summers. Several circum-

stances conspire to make the Aland isles the principal rendezvous of the Russian fleets, which ride there secure in fortified harbors. These circumstances are, the early breaking of the ice in spring; the lateness of the period till which the harbors and roadsteads remain open and free from ice, on account of the strong currents which cross there from the gulfs of Bothnia and Finland; the facility of observing the ships entering lake Maler, and of watching the Swedish coasting trade along the right coast of the gulf of Bothnia, as well as of protecting the Russian coasting trade on the left shore of the same gulf.

ALANI, or ALANS; one of the warlike tribes which migrated from Asia westward at the time of the decline of the Roman empire. They appear to have lived near mount Caucasus. A part of the tribe (about 375 A. D.) was conquered by the Huns; another part turned their steps towards the west, probably, drove the Vandals and Suevi from their abodes, and passed with them over the Rhine into France and Spain (about 407). The Visigoths drove them from hence or reduced them to subjection; and, since 412, they are lost among the Vandals. (q. v.)

ALARIC, king of the Visigoths; the least barbarous of all the conquerors who ravaged the Roman empire. History first mentions him about A. D. 395, when the Goths were united with the armies of Theodosius the Great, in order to repel the Huns, who menaced the western empire. This alliance disclosed to A. the weakness of the Roman empire, and inspired him with the resolution of attacking it himself. The dissensions between the two sons and successors of Theodosius, Arcadius and Honorius, and their ministers, Rufinus and Stilico, facilitated the execution of his purpose; and, though the brave Stilico was successful in averting his first attack, in the years 400—403, by routing him on the Adda and at Verona, yet A. found, in 404, an opportunity of returning to Italy with his army. By the mediation of Stilico, he concluded a compact with Honorius, conformably to which he was to advance to Epirus, and from thence to attack Arcadius, in conjunction with the troops of Stilico. This war did not take place; but A. demanded an indemnification for having undertaken the expedition, and Honorius, at the advice of Stilico, promised him 4000 pounds of gold (see *Stilico*); but, after the execution of the latter, he failed to fulfil his promise. A. advanced

with an army to Italy, and invested Rome; but was persuaded to spare the city on receiving a ransom of 5000 pounds of gold, 30,000 pounds of silver, 4000 silk garments, 3000 pieces of fine scarlet cloth, and 3000 pounds of pepper. Negotiations took place between Honorius, in Ravenna, and A., with a view of putting an end to the war; but the parties could not agree, and A. besieged Rome a second time. By cutting off the supplies of the city, he soon compelled a capitulation, by virtue of which the senate declared the prefect of the city, Attalus, emperor instead of Honorius. But Attalus evinced so little prudence, that A. obliged him publicly to resign the empty dignity. Negotiations again took place with Honorius, but were as unsuccessful as the former, and A. besieged Rome for the third time. The Goths penetrated into the city in 410, sacked it, burned a part of it, and destroyed a great quantity of ancient works of art. But the moderation of A. is praised, because he gave orders to spare the churches, and those who had fled to them for shelter. The once proud mistress of the world now experienced a severe retribution for the sufferings which she had caused to so many cities, countries and nations in the days of her former splendor and power. The treasures collected during a thousand years, from all quarters, became the prey of barbarians. A. left Rome after a residence of 6 days, with the view of reducing Sicily and Africa. He had already laid waste Campania, Apulia and Calabria, when death overtook him at Cosenza, a Calabrian town, A. D. 410. He was buried in the channel of the Busento, that his remains might not be found by the Romans; and the captives employed in the work were murdered. Rome and Italy celebrated public festivals on the occasion; Sicily and Africa saw themselves freed from imminent danger; and the world enjoyed a moment of peace. But the march of desolation was soon renewed; the barbarians had learned the way to Rome; A. had taught them the weakness of the former queen of the world.

ALATAMAHA, or ALTAMAHA; the largest river of the state of Georgia, formed by the junction of the Oakmulgee and Oconee, both of which rise in the spurs of the Alleghany mountains. After the junction, the A. becomes a large river, flowing with a gentle current, through forests and plains, 120 miles, and runs into St. Simon's sound by several mouths,

60 miles S. W. Savannah. Its average breadth is about 600 yards, its depth 8 feet, and the bar at the mouth of the river has 14 feet of water at low tide. Large steam-boats have ascended the Oconee branch to Milledgeville, and the Oakmulgee to Macon, about 300 miles from the ocean by the windings of the rivers.

ALAY, or *Triumph*; the name of a ceremony practised by the Turks at the commencement of war. We are informed by baron Tott (q. v.), who saw the ceremony which accompanied the breaking out of a war between Russia and the porte, that the A. consists of a kind of masquerade, in which the different tradesmen exhibit the implements of their respective arts, and their mode of operations. (A similar exhibition of various trades was seen in the procession formed to celebrate the commencement of the rail-road at Baltimore, July 4, 1828.) The mechanics are followed by the standard of the prophet Mahomet, brought from the seraglio, to be carried to the Ottoman army. This sacred banner is viewed with fanatical reverence. None but emirs are allowed to touch it; and the very look of an infidel is said to be sufficient to profane it. The A. having been almost forgotten, from the long peace which preceded the war above-mentioned, the Christians imprudently crowded to witness the exhibition; the emir, who preceded the holy standard, cried with a loud voice, "Let no infidel profane with his presence the banner of the prophet; and let every Mussulman, who perceives an unbeliever, make it known under pain of reprobation." At these words, the fanaticism of the Turks was roused, and a horrid massacre of the Christians began, in which no age and neither sex was spared.

ALBA LONGA; a considerable city of Latium; according to tradition, built by Ascanius, the son of Æneas; governed, after the death of its founder, by Æneas Sylvius, the second son of Æneas. It was the birthplace of Romulus and Remus, the parent of Rome, under whose dominion it fell, in consequence of the victory of the Romans in the contest between the Horatii and Curiatii. The beautiful lake of Albano, with its canal, and the castle of Gandolfo, still remind us of A. (See *Niebuhr's Roman Hist.*)—There was also a city of Alba near the Lacus Fucinus, a town of the Marsi; an A. Pompeia in Liguria, and an A. Julia, now Weissemburg, in Transylvania.

ALBAN, St., lived in the 3d century, and is said to have been the first person who suffered martyrdom for Christianity in Great Britain. He was born near the town which now bears his name, in Hertfordshire. In his youth, he served 7 years as a soldier, under the emperor Diocletian. Returning to Britain, he embraced Christianity, and suffered martyrdom in the great persecution which took place in the time of the above emperor. A number of miracles are attributed to this saint. The celebrated monastery of St. Alban's was founded between 4 and 5 centuries after his death, by Offa, king of Mercia.

ALBANI; a rich and powerful family of Rome, which fled before the Turks in the 16th century, from Albania to Italy. Here it was divided into two branches; the one constituting the family of Bergamo; the other, that of Urbino. The Roman branch of the A. owes its splendor to a fortunate circumstance. It was an A. who announced to Urban VIII the acquisition of Urbino; and riches and posts of honor were the reward of his tidings. The influence of the family was very great when Clement XI ascended the papal chair, in 1700. Of the nephews of this pope, Annibale A., Alessandro A., and Giovanni Francesco A., Annibale has distinguished himself by his writings and collections of books and works of art, which have been incorporated with the treasures of the Vatican. Alessandro A., his younger brother, born at Urbino in 1692, took orders at the express desire of pope Clement XI. He was raised to the dignity of cardinal, in 1721, by Innocent XIII. As a member of the sacred college, as protector of Sardinia, and, under Benedict XIV, as associate protector of the imperial states, he took an active part in all the contests in which the papal court was then engaged, particularly on account of his great friendship for the Jesuits, of which many proofs exist, especially in the journals of father Cordara. In the charms of a quiet, literary life, of agreeable society, and a well-filled table, the cardinal found greater enjoyment than in the turmoil of business. One of his greatest pleasures was in a collection of works of art, which he was assisted in arranging by Winckelmann, whose collections he inherited. It is known how sincerely Winckelmann was devoted to the cardinal, whose knowledge could appreciate and second the genius of the archæologist. Of this, his splendid villa before Porta Salara, at Rome, not-

withstanding many losses, affords striking proof. Morcelli, Marini, Fea and Zoega combined to make it known, and owe a portion of their own reputation to its treasures. It contains the richest modern private collection, and does honor to the taste of its founder. It was said in Rome, soon after the death of the cardinal, as a proof of his acquaintance with ancient coins, that he could distinguish the genuine from the counterfeit by the mere touch, without the aid of his eyes. Indefatigably active, yet never an author, the cardinal died, Dec. 11, 1779. Dionigio Strocchi has written his life.

ALBANI, Francesco, a famous painter, born at Bologna, in 1578, entered the school of Dionysius Calvert, a Flemish painter, who had a great reputation in Bologna. A. was one of his most distinguished scholars. He labored here several years, in connexion with Domenichino, to whom he was closely attached by friendship and love of art; and some resemblance is perceptible in their manner of coloring. But in invention he surpasses his friend, and, indeed, all his rivals of the school of Calvert. His female forms Mengs places above those of all other painters; an opinion which we cannot assent to unconditionally. Those of his compositions that are most frequently met with are, the sleeping Venus; Diana in the bath; Danaë reclining; Galathea on the sea; Europa on the bull. Scriptural subjects he has less frequently selected; when he has, the paintings are principally distinguished for the beauty of the heads of the angels. In general, he was most successful in paintings of a limited character. He had a numerous school in Rome and Bologna. The scholars of Guido, with whom he vied, accused him of effeminacy and weakness of style, and maintained that he knew not how to give any dignity to male figures. For that reason, he avoided subjects which demand fire and spirit, and has been called, not without reason, the *Anacreon of painters*. The narrowness of his sphere of excellence was eventually injurious to him. He outlived his fame, and died in 1660, in the 82d year of his age. He left behind him several writings, which Malvasia has preserved.

ALBANIA (in the Turkish language, *Arnaut*; in the Albanian, *Skiperi*); (Epirus and Illyria); a Turkish province in Arnaut-Wilajeti, extending from the Drino to the Acroceraunian mountains, along the coast of the Adriatic and Ionian seas. It has a delicious climate, and produces in

abundance wine, grain, oil, tobacco, cotton, wood, mineral salt, and horned cattle. The principal mountains are the Montenegro and the Chimera; the principal rivers the Drino, Bojana, Somini, &c. The 300,000 inhabitants are composed of Turks, Greeks, Jews and Arnauts; the last of which constitute the boldest soldiers in the Turkish armies. The country is divided into the pashalics of Janina, Ilbessan and Scutari, and the sangiacats of Aulona and Delvino. The principal cities are Janina, Delvino, Scutari, Durazzo, Argyro-Castro, Valona, &c. The authority of the porte in this region is very uncertain, being more or less relaxed in proportion as the independent communities and beys enlarge or contract their possessions, in opposition to the pashas whom it appoints. The vast, mountainous coast of A. is very little known. The Venetian government, while the republic of Venice existed, defended it against any permanent conquest by the Turkish pashas. Here Greek and Catholic Christians, and Mahometans likewise, live in a half savage state, and under the most various forms of government. At the time of the revolt of the Greeks, the most southern part of Albania took the ancient name of *Epirus*. (See *Epirus*.) From the lake of Janina arise the rivers Acheron (q. v.) and Cocytus, not far from the mouth of which lies Parga. Epirus, especially in the neighborhood of the sea, is a fertile country; it produces wine, corn and fruit. In ancient times, its horses were famed for swiftness, its cows for size, and its dogs for strength and courage. These races seem now to be extinct. Before the Greek revolution, Ali Pasha (q. v.) ruled in Janina. In Scutari, there are yet independent communities, the inhabitants of mount Montenegro, the Suliots and others in the neighborhood of the former Venetian, now Austrian, territory. These small free tribes enjoyed, as long as the republic of Venice existed, the secret protection of that government; to which is to be attributed their success in maintaining themselves against the Turkish force, and the violence of private feuds. The same policy was pursued likewise by the French Illyrian government. In the country itself, the Arnauts are called *Skypetars*. They are bold and indefatigable, but mercenary and perfidious warriors. They once constituted the flower of the Turkish army. Every one who has no landed property seeks to acquire the means of obtaining it, by incursions

into the neighboring territory, or military service in foreign countries. The sons of influential families, or distinguished soldiers, collect a troop, and, like the former *condottieri* of Italy, sell their aid to any one who will pay them well. This migration of armed hordes, caused by the want of landed property sufficient to support them, is a national instinct, common to the Greek, Catholic and Mahometan Arnauts. For this reason, the communities in the most fertile valleys rarely increase, and there is a great disproportion of unmarried females. But in case of attack, the women defend their homes and property with masculine courage. The political influence of the clergy is great among the Christian Arnauts.

ALBANO. Roman tradition represents Alba Longa as the parent city of Rome. It gives us a catalogue of the kings of Alba, who lived before the foundation of the latter city; but this is now universally believed to be fabulous. Tullus Hostilius is said to have destroyed the city, and transplanted the inhabitants to Rome. Its site was afterwards occupied by a village, surrounded by the splendid villas of the Roman nobility. Tiberius and Domitian indulged in their palaces at A. their appetite for pleasure and for cruelty. The present A. still glories in its old renown. On the mountain of A. the anniversary of the alliance of the Romans and Latins, concluded under Tarquin the Proud, was celebrated with peculiar solemnities. The lake of A. is a wonder of nature and ancient art. During the war with Veii, 395 B. C., this lake is said to have risen in a hot summer, without any visible cause, to an unusual height. Etruscan soothsayers spread the report, that the fate of Veii depended on the drawing off of this water; and the Romans, confirmed in this belief by a Delphic oracle, erected a remarkable structure for this purpose. (*Liv.* v. 15—19.) During the labor, they probably learned from the architectural Etruscans the art of excavating subterranean canals, which they soon applied to undermining the fortifications of Veii, and thereby gained possession of the city. The canal of the lake of A. is 3700 paces in length, 6 feet high, and $3\frac{1}{2}$ broad. Niebuhr, in his *Römische Geschichte* (Roman History), part 2, page 234, regards this admirable work as an ancient labor of all Latium; or, if belonging particularly to Rome, to be referred to the age of the kings. The Albanian stone is also famous. It is of a dark-gray color, and is excavated in large

quantities near A. It is of two kinds; the one of which is called *Sperone*, the other *Peperino*. Of this, says Winckelmann, was made the foundation of the capitol at Rome, built in the year of the city 387, of which five layers of large stones are still to be seen above ground. The *cloaca maxima*, a work of the Tarquins, as well as the most ancient of the Roman funeral monuments at A., and another of their oldest works, constructed about the 358th year of the city, the outlet of the lake of A., at present Lago di Castello, are built of this stone.

ALBANY, or ALBANI, countess of, princess Louisa Maria Caroline, or Aloysia, born in 1753, cousin of the last reigning prince of Stolberg-Gedern, who died in 1804, married, in 1772, the English pretender, Charles Stuart. After this marriage, she bore the title of countess of A. Her marriage was unfruitful and unhappy. To escape from the barbarity of her husband, who lived in a continual state of intoxication, she retired, in 1780, to a cloister. After his death, in 1788, the French court conferred on her an annuity of 60,000 livres. She survived the house of Stuart, which became extinct at the death of her brother-in-law, the cardinal of York, in 1807. (See *Stuart*.) She died at Florence, her usual place of residence, Jan. 29, 1824, in her 72d year. Her name and her misfortunes have been transmitted to posterity in the works and the autobiography of count Victor Alfieri. This famous poet called her *mia donna*, and confessed that to her he owed his inspiration. Without the friendship of the countess of A., he has said that he never should have achieved any thing excellent: "*senza laquella non aurei mai fatto nulla di buono*." The sketch of his first meeting with the countess, *quella gentilissima e bella signora*, as he calls her, is full of sentiment and genuine poetry. (See *Alfieri*.) Her ashes and those of Alfieri now repose under a common monument, in the church of Santa Croce, at Florence, between the tombs of Machiavelli and Michael Angelo.

ALBANY, a city of New York, the seat of the government of the state, is situated on the west bank of the Hudson, 144 miles N. of the city of New York; lat. 42° 39' N.; lon. 73° 13' W.; pop. in 1810, 9,356; in 1820, 12,613; and in 1825, 15,974. Albany lies near the head of tide-water, on one of the finest rivers in the world, which is navigable as far as the city for sloops of 80 tons; and, except when the river is obstructed by ice,

steam-boats run daily between this place and the city of New York. The Erie and Champlain canals form a junction at Watervliet, about 8 miles north of the city, and their united channel is connected at A. with a large basin, which covers a surface of 32 acres, on the west side of the river. These advantages, together with many stage-coaches in various directions, render A. one of the greatest thoroughfares in the United States. The city carries on an extensive trade by means of sloops, chiefly with the city of New York; and also, to a considerable amount, with Boston, Philadelphia, and other places. The exports consist of wheat, and various other kinds of produce.—A. was settled by the Dutch about the year 1614, and is, next to Jamestown in Virginia, the oldest town in the U. States. The site on which it is built is very uneven, and it was originally laid out with little regard to elegance. The older houses are in the Dutch style, with the gable ends to the streets; but within the last 20 years, the city has been greatly improved, and it now contains many elegant public and private buildings. The principal public edifices are the capitol or state-house, a large structure of stone, the Albany academy, a spacious and elegant edifice, the state-hall for the public offices, a state arsenal, and 12 houses of public worship.

ALBANY; the modern district of the colony of the cape of Good Hope. (See *Good Hope*.)

ALBATROSS (*diomedea*, L.); a genus of web-footed birds, having the following generic characters: a very long bill, which is sutured, robust, thick, straight and laterally compressed, terminating in a large hook, apparently articulated therewith. The upper mandible is laterally grooved, and the short, tubular nostrils are situated in these grooves; the lower mandible is truncated. The toes are very long, and are webbed with an entire membrane; the lateral toes are externally edged by a narrow membrane. There is no hind toe nor nail; the nails are short and blunt. The tail is rounded, and composed of fourteen feathers.—The A. most generally known is the *diomedea exulans* of naturalists, the *frigate bird*, *man-of-war bird* and *cape sheep* of sailors. It is the largest of marine birds, as its wings, when extended, measure from 10 to 12 feet from tip to tip. These long wings are very narrow, but the A. being extremely strong, is able to fly with ease over a vast space. Except during high winds, when

it ascends to the superior regions of the air, the A. sails gently over the surface of the billows, rising and sinking in graceful undulation, and seizing with avidity every luckless creature that approaches the surface. Pursuing its prey in this manner, it urges its flight far from land, and, by occasionally alighting upon vessels, deceives the inexperienced voyager into an idea that the shore cannot be very distant. At night, this bird settles down upon the waves, and sleeps securely until hunger again commands a renewal of its efforts.—The A. might be assumed as a perfect emblem of gluttony, as it is scarcely possible, in description, to do justice to its excessive voracity. Whenever food is abundant, it gorges to such a degree as to become unable either to fly or swim; frequently it is seen in this state, with a fish partly swallowed and partly hanging from its mouth. The gulls then attack and worry it until it disgorges its prey, upon which they are ready to seize. When caught by hand, it makes violent struggles with its wings, and strikes with its beak. Fish spawn, gelatinous molluscs, and various small marine animals constitute its ordinary food. Flying-fish are also particularly exposed to this devourer, whose swiftness of wing is far superior to theirs. The voice of the A. is a harsh, disagreeable cry, somewhat resembling that of a pelican; it has also been compared to the braying of an ass.—Towards the middle of June, vast numbers of these birds flock towards the coast of Kamtschatka, the sea of Ochotsk, the shores of the Kurile islands and Behring's straits. They arrive there, extremely lean, a short time preceding the fish, which come annually to spawn in the fresh water of the rivers; but, soon after, the birds become very fat from the abundance of food. They begin to retire from these coasts about the end of July, and by the 15th of August the whole have disappeared. During their sojourn, the Kamtschadales catch numbers of them by baiting hooks with fish, or by knocking them on the head when overgorged. They are not taken for their flesh, which is coarse, rank and disgusting; but their large, hollow wing-bones furnish the natives with various useful implements, while certain parts of their intestines are inflated and employed as floats for fishing-nets.—About the middle of September, they seek the southern shores of America, for the purpose of breeding; there they build nests of earth two feet or more high, and lay numerous eggs, which are larger than

those of a goose, being about $4\frac{1}{2}$ inches long, generally white, except towards the larger extremity, where they are speckled with black. These eggs are edible, and it is stated, by those who have used them, that the white is not rendered hard by boiling. While the female sits upon the nest, the male is industriously employed in supplying her with food. This seems to be more especially necessary, as hawks are constantly on the watch for an opportunity of pouncing upon the eggs the moment the nest is left exposed. As soon as the A. finally relinquishes the nest, it is taken possession of by a species of penguin.—The common A. (*diomedea exulans*) is from 3 to 4 feet long, of a grayish-brown or whitish color, with lines of black upon the back and wings. The inferior part of the body and rump are white; the end of the tail and a great part of the wings are black. The shafts of the quills are yellow. The feet, toes and web membrane are of a reddish-brown color; the beak is blackish. The female is similar to the male; the young differ much from the adult. The A. moults twice a year without changing its colors.—Three other species are considered as having been established by naturalists: *diomedea chlororhynchos*, black and yellow-beaked A., of the size of a domestic goose; *diomedea spadicea*, dark-brown or chocolate-colored A., larger than the common goose; *diomedea fuliginosa*, sooty or quaker A., smaller than the common A. It is highly probable that future investigation will reduce the number of species which have been proposed.—This bird is most commonly found within the tropics, about the cape of Good Hope, and even amid the ice of the Austral seas. It is sometimes, though rarely, seen on the coasts of the Middle States of the Union.—Except what has been already mentioned relative to the use made of them by the Kamtschadales, we know of no economic purpose for which they are employed. Possibly their large quills might be found useful, if obtained in sufficient numbers.—The importance of the A. in the economy of nature may be readily collected from what we have stated relative to its food, and the vast extent of surface over which it can protract its flight. It serves as one of the numerous restrainers of the superabundant increase of animal life, and, in its turn, becomes the prey of creatures stronger or more sanguinary than itself. Among others, a species of *lestris* is a dreadful enemy, and beats it, while on the wing, until the A. disgorges its food,

which the other immediately seizes, or the blows are continued until the huge bird expires, a victim to the ravenous appetite of its adversary. This fierce bird is commonly called the *skua gull*; but it is improperly termed *gull*, being more closely allied to the petrels and *A.* in appearance; in habits, it has some analogy with the eagles. When the *A.* is attacked by a flock of gulls or other birds, while on the wing, it has no other resource but that of suddenly dropping upon the water. Under all circumstances, however, the cowardice of this gigantic bird is equal to its voracious gluttony.

ALBEMARLE SOUND; an inlet of the sea on the east coast of N. Carolina. It extends into the country 60 miles, and is from 4 to 15 wide. It may be considered as an estuary of the Roanoke and Chowan rivers. It communicates with the Atlantic ocean and Pamlico sound by small inlets, and with Chesapeake bay by a canal cut through Dismal swamp.

ALBERONI, Giulio, cardinal, and minister of the king of Spain, was the son of a gardener. He was born in 1664, at Fidenza, a village of Parma, and educated for the church. His first office was that of bell-ringer in the cathedral of Piacenza. Possessed of uncommon talents, he soon became canon, chaplain and favorite of the count Roncovieri, and bishop of St. Donnin. The duke of Parma sent him as his minister to Madrid, where he gained the affection of Philip V. He rose, by cunning and intrigue, to the station of prime minister; became a cardinal; was all-powerful in Spain after the year 1715, and endeavored to restore it to its ancient splendor. He reformed abuses, created a naval force, organized the Spanish army on the model of the French, and rendered the kingdom of Spain more powerful than it had been since the time of Philip II. He formed the great project of restoring to Spain her lost possessions in Italy, and he began with Sardinia and Sicily. Even when the duke of Orleans, regent of France, renounced the Spanish alliance to form a connexion with England, the proud prelate did not alter his system; on the contrary, he threw off his mask, attacked the emperor, and took Sardinia and Sicily. After the Spanish fleet was destroyed by the English in the Mediterranean, he entertained the idea of stirring up a general war in Europe; of forming an alliance for this purpose with Peter the Great and Charles XII; of involving Austria in a war with Turkey, exciting

an insurrection in Hungary, and causing the duke of Orleans to be arrested by a court faction. But the scheme was discovered. The duke, in connexion with England, declared war against Spain, and explained, in a manifesto, the intrigues of the Italian cardinal. A French army invaded Spain, and, although Alberoni endeavored to cripple the power of France by fomenting disturbances within that kingdom, the Spanish monarch became despondent, and concluded a peace, the chief condition of which was the dismissal of the cardinal. He received, Dec. 1720, orders to quit Madrid within 24 hours, and the kingdom within 5 days. He was now exposed to the vengeance of the powers of Europe, by all of whom he was hated, and saw no country where he could abide. He did not even dare to go to Rome, because he had deceived the pope, Clement XI, in order to obtain the rank of cardinal. While crossing the Pyrenees, his carriage was attacked, one of his servants killed, and he himself obliged to continue his journey on foot and in disguise. He wandered about a long time under false names. He was arrested in the territory of Genoa, at the request of the pope and the king of Spain; the Genoese, however, soon dismissed him. The death of Clement put an end to this persecution, and his successor, Innocent XIII, restored him, in 1723, to all the rights and honors of a cardinal. He died in 1752, at the age of 87 years.

ALBERT I, duke of Austria, and afterwards emperor of Germany, was born in 1248, son of Rodolph of Hapsburg (q. v.), who had, a short time before his death, attempted to place the crown on the head of his son. But the electors, tired of his power, and imboldened by his age and infirmities, refused his request, and indefinitely postponed the election of a king of the Romans (this was the title of the designated successor of the emperor). After the death of Rodolph, A., who inherited only the military qualities of his father, saw his hereditary possessions, Austria and Stiria, rise up in rebellion against him. He quelled by force this revolt, which his avarice and severity had excited; but success increased his presumption. He wished to succeed Rodolph in all his dignities, and, without waiting for the decision of the diet, seized the insignia of the empire. This act of violence induced the electors to choose Adolphus of Nassau emperor. The disturbances which had broken out against

him in Switzerland, and a disease which deprived him of an eye, made him more humble. He delivered up the insignia, and took the oath of allegiance to the new emperor. As soon as he had quelled the insurrection in Switzerland, he was involved in new quarrels with his subjects in Austria and Stiria, especially with the bishop of Salzburg, who, upon the report of his death, had made an incursion into his dominions. In the meantime, Adolphus, after a reign of 6 years, had lost the regard of all the princes of the empire. A. endeavored to avail himself of this change of feeling, and succeeded so far, by assumed mildness, in deceiving the princes, that they chose him emperor, after deposing Adolphus at the diet in 1298. Adolphus, however, would not resign his high dignity, and force was found necessary to remove him. The rivals met, with their armies, near Gellheim, between Worms and Spire. A. enticed Adolphus, by a feigned retreat, to follow him with his cavalry only. The leaders engaged hand to hand, and Adolphus exclaimed to his adversary, "Thou shalt lose at once thy crown and life." "Heaven will decide," was the answer of A., striking him with his lance in the face. Adolphus fell from his horse, and was despatched by the companions of his antagonist. The last barrier had fallen between A. and the supreme power, but he was conscious of having now an opportunity of displaying his magnanimity. He voluntarily resigned the crown conferred on him by the last election, and, as he had anticipated, was reelected. His coronation took place at Aix la Chapelle, in August, 1298; and he held his first diet at Nuremberg, with the utmost splendor. But a new storm was gathering over him. The pope, Boniface VIII., denied the right of the electors to dispose of the imperial dignity, declaring himself the real emperor and legitimate king of the Romans. He accordingly summoned A. before him, to ask pardon, and submit to such penance as he should dictate; he forbade the princes to acknowledge him, and released them from their oath of allegiance. The archbishop of Mentz from a friend became the enemy of A., and joined the party of the pope. On the other hand, A. formed an alliance with Philip le Bel of France, secured the neutrality of Saxony and Brandenburg, and, by a sudden irruption into the electorate of Mentz, forced the archbishop not only to renounce his alliance with the pope, but to form one with him for the 5 ensuing years. Dismayed

by this rapid success, Boniface entered into negotiations with A., in which the latter again showed the duplicity of his character. He broke his alliance with Philip, acknowledged that the western empire was a grant from popes to the emperors, that the electors derived their right of choosing from the see of Rome, and promised to defend with arms the rights of the pope, whenever he should demand it, against any one. As a reward, Boniface excommunicated Philip, proclaimed him to have forfeited his crown, and gave the kingdom of France to A. Philip, however, chastised the pope. A. was engaged in unsuccessful wars with Holland, Zealand, Friesland, Hungary, Bohemia and Thuringia. While preparing to revenge a defeat which he had suffered in Thuringia, he received the news of the revolt of the Swiss, and saw himself obliged to direct his forces thither. The revolt of Underwalden, Schweiz and Uri had broken out Jan. 1, 1308. A. had not only foreseen this consequence of his oppression, but desired it, in order to have a pretence for subjecting Switzerland entirely to himself. A new act of injustice, however, put an end to his ambition and life. Suabia was the inheritance of John, the son of his younger brother, Rodolph. John had repeatedly asserted his right to it, but in vain. When A. set out for Switzerland, John renewed his demand, which was contemptuously rejected by A., who scoffingly offered him a garland of flowers, saying, "This becomes your age; leave the cares of government to me." John, in revenge, conspired with his governor, Walter of Eschenbach, and three friends, against the life of A. The conspirators improved the moment when the emperor, on his way to Rheinfelden, was separated from his train by the river Reuss, and assassinated him. A. breathed his last, May 1, 1308, in the arms of a poor woman, who was sitting on the road. He was a prince regardless of right and equity, tyrannical, avaricious, ambitious and able. How cruelly Agnes, queen of Hungary, revenged her father's death, will be related under *John the Parricide*.

ALBERT THE GREAT, or ALBERTUS MAGNUS, bishop of Ratisbon; a distinguished scholar of the 13th century. Besides his theological learning, he was well versed, for his time, in mechanics, natural history and natural philosophy. He was born in 1193 (according to some accounts, in 1205), at Lauingen, in Suabia, of the noble family of Bollstädt; studied at

Padua; became a monk of the Dominican order; in 1254, was made provincial of his order; and, in 1260, received from pope Alexander IV the bishopric of Ratibon. Two years later, he returned to his convent, devoted himself to science, and produced many learned works on arithmetic, geometry, optics, music, astrology and astronomy. He died in 1280.

ALBIGENSES (Albigensis); a name common to several heretical sects, particularly the Cathari and Waldenses, who agreed in opposing the dominion of the Roman hierarchy, and endeavoring to restore the simplicity of primitive Christianity. They had increased very much towards the close of the 12th century, in the south of France, about Toulouse and Albi, and were denominated by the crusaders *A.*, from the district Albigeois (territory of Albi), where the army of the cross, called together by pope Innocent III, attacked them in 1209. The assassination of the papal legate and inquisitor, Peter of Castelnau, while occupied in extirpating these heretics in the territory of the count Raymond of Toulouse, occasioned this war, which is important as the first which the Romish church waged against heretics within her own dominions. It was carried on with a degree of cruelty which cast a deep shade over the Roman clergy, as their real object appeared to be to deprive the count of Toulouse of his possessions, on account of his tolerating the heretics. It was in vain that this powerful prince had suffered a disgraceful penance and flagellation from the legate Milo, and obtained the papal absolution by great sacrifices. The legates, Arnold, abbot of Citeaux, and Milo, took Beziers, the capital of his nephew Roger, by storm, and put all the inhabitants (about 60,000), without any distinction of creed, to the sword. Simon de Montfort, the military leader of the crusade, under the legates, was equally severe towards other places in the territory of Raymond and his allies, of whom Roger died in a prison, and Peter I, king of Aragon, in battle. The lands taken were presented by the church, as a reward for his services, to the count of Montfort, who, however, on account of the changing fortune of war, never obtained the quiet possession of them; he was killed by a stone, at the siege of Toulouse, in 1218. The legates prevailed on his son, Amalric, to cede his claims to the king of France. The papal indulgences attracted from all provinces of France new crusaders, who continued the war, and, even after the death of Raymond VI, in 1222,

under excommunication, his son, Raymond VII, was obliged, notwithstanding his readiness to do penance, to defend his inheritance, till 1229, against the legates, and Louis VIII of France, who fell, in 1226, in a campaign against the heretics. After hundreds of thousands had fallen on both sides, and the most beautiful parts of Provence and Upper Languedoc had been laid waste, a peace was made, by the terms of which Raymond was obliged to purchase his absolution with a large sum of money, to cede Narbonne, with several estates, to Louis IX, and make his son-in-law, a brother of Louis, heir of his other lands. The pope suffered these provinces to come into the possession of the king of France, in order to bind him more firmly to his interests, and force him to receive his inquisitors. The heretics were now delivered up to the proselyting zeal of the Dominicans, and to the courts of the inquisition; and these new auxiliaries, which priestcraft had acquired during the war (see *Dominic de Guzman*, and *Inquisition*), employed their whole power to bring the remainder of the *A.* to the stake, and made even the converts feel the irreconcilable anger of the church, by heavy fines and personal punishments. The name of the *A.* disappeared after the middle of the 13th century; but fugitives of their party formed, in the mountains of Piedmont and in Lombardy, what is called the *French church*, which was continued, through the Waldenses, to the times of the Hussites and the reformation.

ALBINOS (white Negroes, Blafards, Leucæthiops, Dondos), who were formerly found on the isthmus of Panama and at the mouths of the Ganges, and have been described as a distinct race of men, have been likewise discovered, by modern naturalists, in various countries of Europe, e. g. in Switzerland, among the Savoyards in the valley of Chamouni, in France, in the tract of the Rhine, in Tyrol, &c. The characteristics of the *A.* are now said to be owing to a disease which may attack men in every climate, and to which even animals are subject, such as white mice, rabbits, &c. The *A.* have a milky or cadaverous look, and are distinguished from the genuine whites, not only by their wrinkled skin, but also by their red eyes, which want the black mucus, and cannot, therefore, endure the bright light of day. By moon-light, and in the dark, they can see pretty well, for which reason they are accustomed to go abroad only in the night, and, by Lin-

næus and other naturalists, are termed *nocturnal men*. Their hair is woolly, when they are descended from actual Negroes, and somewhat less curly, when they are the children of East Indians; but it is always of an unpleasing milk-color, like their skin. They are weak in body and mind, and very rarely attain the common size of the nations to which they belong. They are generally incapable of begetting children, but when the case is otherwise, the offspring resemble the parents. There are instances of A. possessed of the common faculties of mind, and capable of literary accomplishments. (See, likewise, *Cretin*.) The Germans use the word *Albino* for all individuals afflicted with this disease of the skin, but *Kakerlake* for varieties, whose skin is only sprinkled with white spots.—The East Indians give the name of *albino* to a species of beetle, (*blatte*), especially the *blatta gigantea* of the Indian forests, which grows 3 inches long, and forms an ornament of entomological collections. It is dark-brown and shining; the feathers of its wings are fox-colored and yellow. After this beetle the Indians have named the Albinos.—Blumenbach, Saussure, Buzzi, surgeon to the hospital at Milan, Soemmering, and many others, have made interesting observations on Albinos, and the causes which produce their peculiar color.

ALBINUS, Bernard Siegfried, whose true name was Weiss (White), a distinguished anatomist, born Feb. 24, 1696, at Frankfurt on the Oder, died Sept. 9, 1770, at Leyden, where he was 50 years professor of anatomy. Instructed by his father, Bernard, who enjoyed a good reputation as a professor of medicine, and by the famous professors of the Leyden school, Rau, Bidloo, Boerhaave, he went to France in 1718, where he formed an intimacy with Winslow and Senac, with whom he afterwards carried on a correspondence highly advantageous to anatomy, their favorite science. He entered upon his office as lecturer, in Leyden, 1719, with an oration, *De Anatomia Comparata*. The medical faculty there conferred on him the degree of doctor, without either examination or disputation. A few weeks after, professor Rau died, and, in 1720, A. succeeded him in the professorship of anatomy and surgery. He was one of the first who felt the impulse which Boerhaave gave to anatomy, by explaining the phenomena of the animal economy, not chemically, but mechanically,—a system which rendered a more accurate study of the single parts of the

body, and of their formation, necessary, for the least deviation in the form of any part, according to him, necessarily produces differences in its action. This system rendered it necessary to describe with more accuracy what Vesalius, Fallopius and Eustachius had explained only in a general manner. A. labored in this spirit; we are indebted to him for the most exact anatomical descriptions and prints, especially of the muscles and bones. While he held the office of professor, at Leyden, he wrote *Index Suppletilis Anatomice Ravianæ*, likewise *De Ossibus Corporis Humani*, also *Historia Musculorum Hominis*, and other works, which fill an honorable place in the history of science. He edited, also, several writings of Harvey, Vesalius, Fabricius ab Aquapendente and Eustachius. His brother, Christian Bernard, professor at Utrecht, distinguished himself in the same science, and was likewise an esteemed anatomical writer: he died May 23, 1778.

ALBION; the former name of the island of Great Britain, called by the Romans *Britannia Major*, from which they distinguished *Britannia Minor*, the French province of Bretagne. Agathemerus (lib. xi, c. 4), speaking of the British islands, uses the names *Hibernia* and *Albion* for the two largest; Ptolemy (lib. ii, c. 3) calls A. a *British* island; and Pliny (H. N. lib. iv, c. 16) says, that the island of Great Britain was formerly called *Albion*, the name of Britain being common to all the islands around it. In poetry, A. is still used for Great Britain. The etymology of the name is uncertain. Some writers derive it from the Greek *ἄλφον* (white), in reference to the chalky cliffs on the coasts; others, from a giant, the son of Neptune, mentioned by several ancient writers: some, from the Hebrew *alben* (white); others, from the Phœnician *alp* or *alpin* (high, and high mountain), from the height of the coast. Sprengel, in his Universal History of Great Britain, thinks it of Gallic origin, the same with *Albyn*, the name of the Scotch Highlands. It appears to him the plural of *alp* or *alip*, which signifies *rocky mountains*, and to have been given to the island, because the shore, which looks towards France, appears like a long row of rocks. The ancient British poets call Britain *Ins Wen*, i. e. the white island.

ALBION, New. This name is given to an extensive tract of land on the N. W. coast of America. It was originally applied by sir Francis Drake, in 1578, to the whole of California, but is now, by

recent geographers, e. g. Humboldt, confined to that part of the coast which extends between 43° and 48° N. lat. Cook discovered it March 7, 1778. In 1792, Vancouver visited this coast, made a very diligent inspection of all its parts, and gave a most interesting account of them. The country is described as very fertile; the quadrupeds seem not to be very numerous. The inhabitants are not numerous, and resemble the other savages of the north-west coast of N. A. Vancouver's chart of this region is still the best. The most authentic account of a part of New A. is to be found in Lewis and Clark's Expedition to the Sources of the Missouri, 2 vols., Philadelphia, 1814. The citizens of the U. States, and others who have frequented the north-western coast of America for commercial purposes, have had but little, if any, intercourse with the natives, who inhabit that part of the coast which lies between the entrance of Columbia river, in lat. 46° 15', and the Russian settlement at Port Bodega, in lat. 38°, 21', because no harbor, capable of admitting such vessels as are usually employed in the north-west trade, has yet been discovered within these limits. It has been affirmed by the Russians, that they have discovered several small rivers, but they are not probably of sufficient importance to give any value to the country, until the settlements of civilized nations have become much more extensive than at present. The appearance of the country, as seen from the ocean, is by no means inviting; but some hunters, who have penetrated into the interior, give a favorable representation of it, particularly of that portion which lies near the Multnomah, a branch of the Columbia river, that runs from the south. (See *North-West Coast*, trade to.)

ALBOIN, king of the Lombards, succeeded his father, Audoin, in 561. He reigned in Noricum and Pannonia, while Cunimund, king of the Gepidæ, ruled in Dacia and Sirmia, and Baian or Chagan, king of the Avars, was completing the conquest of Moldavia and Walachia. Narses, the general of Justinian, sought his alliance, and received his aid, in the war against Totila. A., in connexion with the Avars, made war against the Gepidæ, and slew their king, Cunimund, with his own hand, in a great battle fought in 566. This victory established his fame. After the death of his wife, Clodoswinda, he married Rosamond, the daughter of Cunimund, who was among the captives. He afterwards undertook the conquest of

Italy, where Narses, who had subjected this country to Justinian, offended by an ungrateful court, sought an avenger in A., and offered him his coöperation. Every year witnessed the increase of A.'s power in Italy, in reducing which he met with no resistance, except the brave defence of single cities. Pavia fell into his hands after a siege of 3 years. After reigning 3½ years in Italy, he was slain at Verona, in 574, by an assassin, instigated by his wife, Rosamond. He had incurred her hatred by sending her, during one of his fits of intoxication, a cup, wrought from the skull of her father, filled with wine, and forcing her, according to his own words, to drink with her father. This incident has been introduced by Ruccellai and Alfieri, into their tragedies, called *Rosmunda*, in a very pathetic manner.

ALBORAK; amongst the Mahometan writers, the beast on which Mahomet rode in his journeys to heaven. The Arab commentators report many fables concerning this extraordinary animal. It is represented as of an intermediate shape and size between an ass and a mule. A place, it seems, was secured for it in paradise, at the intercession of Mahomet, which, however, was in some measure extorted from the prophet by Alborak refusing to carry him upon any other terms, when the angel Gabriel was come to conduct him to heaven.

ALBUFERA; a considerable salt-water lake, lying north of the city of Valencia, in Spain, near the sea, with which it is connected by sluices. It abounds in fish, but dries in summer so much as, in some parts, to become a mere marsh. The French general Suchet received the title of duke of Albufera on account of the blockade and capture of the Spanish general Blake, in Valencia. The water-birds and eels, which are taken here, yield 12,000 dollars annually.

ALBUHERA; a village in Estremadura, on the Albuhera, 12 miles S. S. E. Badajoz. A battle was fought here, May 16, 1811, between the army of marshal Beresford, consisting of about 30,000 British, Spanish and Portuguese, and that of the French marshal Soult, amounting to about 25,000 men, but considerably superior in artillery. The object of the French was to raise the siege of Badajoz, which was invested by the English. Soult was obliged to retreat to Seville, with a loss stated at 8000 men. The allies lost about 7000 men, and gained the victory by a cool, well-directed and opportune fire on the columns of French infantry. Badajoz,

a few days after, fell into the hands of the allies.

ALBUM; among the Romans, a white board for official publications. These boards received their appellations from the various magistrates; the *album pontificum* served as a state chronicle.—*Album* is also used to denote a kind of table or pocket-book, wherein the men of letters, with whom a person has conversed, inscribe their names, with some sentence or motto. The famous Algernon Sydney, being in Denmark, was presented by the university of Copenhagen with their album, whereupon he wrote these words;

Manus hæc inimica tyrannis
Ense petit placidam sub libertate quietem.

Albums are at present in fashion among ladies. In Germany, where the fashion is said to have originated, they are now almost out of use, excepting such as are kept on interesting spots, high towers, mountains, fields of battle, &c.—Göthe, being once asked by a tedious visitor to write something in his album, wrote G, the initial of his name. The name of this letter, in German, signifies go.

ALBUMEN, in physiology, exists nearly pure in the white of eggs. As thus procured, it is a glareous fluid, with very little taste. When kept for some time exposed to the air, it putrefies, but when spread in thin layers and dried, it does not undergo any change. When heated to about 165° Fahr., it coagulates, and its properties are entirely changed. It is soluble in cold water, and is separated, in its coagulated state, by hot water, if the quantity of fluid be not great; but if the water be about 10 times as much in amount as the albumen, there is no coagulation. Hence we cannot dissolve it in warm water, for, when put into it (as when a little of the white of eggs is thrown into a glass of boiling water), it is instantly coagulated. It is also coagulated by acids. A. exists in different parts of animals, as cartilage, bones, horns, hoofs, flesh, the membranous parts, and in considerable quantity in blood, from which it is usually procured, when required in the arts. From the property which it possesses of being coagulated by heat, it is employed for clarifying fluids, as in the refining of sugar, and in many other processes. When required in a large quantity, bullock's blood is used. When this or the white of eggs is put into a warm fluid, its A. is coagulated, and entangles the impurities, and, as the scum rises, it is removed.

A. acts in the same way, also, in clarifying spirituous fluids. When, for instance, the white of an egg is added to wine, or to any cordial, the alcohol coagulates it, and the coagulum entangles the impurities, and carries them to the bottom. Both gelatin and A. exist in flesh, and, as the former is soluble in warm water, hence the difference in the nutritious quality of butcher's meat, according to the mode of cooking it; when, for instance, meat is boiled, the greater part of the gelatin is extracted, and retained by the soup; when, on the contrary, it is roasted, the gelatinous matter is not removed; so that roasted meat contains both gelatin and A., and should, therefore, be more nutritious than the other. By the analysis of Gay-Lussac and Thenard, 100 parts of A. are formed of 52,883 carbon, 23,872 oxygen, 7,540 hydrogen, 15,705 nitrogen. The negative pole of a voltaic pile in high activity coagulates A. Orfila has found the white of eggs to be the best antidote to the poisonous effects of corrosive sublimate on the human stomach. (See Egg.)

ALBUQUERQUE, Alfonso de, viceroy of India, surnamed *the Great*, and the *Portuguese Mars*, was born at Lisbon, 1452, of a family that derived its origin from kings. A heroic and enterprising spirit at that time distinguished his nation. They had become acquainted with, and had subjected to their power, a large part of the western coast of Africa, and began to extend their sway over the seas and nations of India. A. was appointed viceroy of their acquisitions in this quarter, and arrived, Sept. 26, 1503, with a fleet and some troops, on the coast of Malabar; took possession of Goa, which he made the centre of the Portuguese power and commerce in Asia; subdued the whole of Malabar, Ceylon, the Sunda islands, and the peninsula of Malacca. In 1507, he made himself master of the island of Ormus, at the entrance of the Persian gulf. When the king of Persia demanded the tribute which the princes of this island had formerly paid him, A. laid before the ambassadors a bullet and a sword, saying, "This is the coin in which Portugal pays her tribute." He made the Portuguese name highly respected by all the nations and princes of India, and several, as the kings of Siam and Pegu, courted his friendship and protection. All his enterprises were extraordinary. His discipline was strict; he was active, cautious, wise, humane and just; respected and feared by his neighbors, beloved by his inferiors. His virtues made such an impression on

the Indians, that they, for a long time after his death, made pilgrimages to his tomb, and besought him to protect them against the tyranny of his successors. Notwithstanding his great merits, he did not escape the envy of the courtiers, and the suspicions of king Emanuel, who sent López Soarez, the personal enemy of A., to fill his place. The ingratitude of his sovereign severely afflicted him, and he died, a few days after receiving the intelligence, at Goa, in 1515, having recommended his only son to the king's favor, in a letter written a short time before his death. Emanuel honored his memory by a long repentance, and raised his son to the highest dignities of the kingdom.

ALBURNUM; the soft, white substance which, in trees, is found between the liber, or inner bark, and the wood, and, in progress of time acquiring solidity, becomes itself the wood. A new layer of wood, or rather of A., is added annually to the tree in every part, just under the bark.

ALCÆUS, one of the greatest Grecian lyric poets, was born at Mitylene, in Lesbos, and flourished there at the close of the 7th and the beginning of the 6th centuries B. C. Somewhat older than Sappho, he paid homage to the charms of his renowned countrywoman, but, as it seems, unsuccessfully. Being of a fiery temperament, he sought at the same time the laurel of war and of the muses. His misfortune in losing his shield, in a war between Mitylene and Athens, has been falsely attributed to cowardice. He engaged in the civil war which convulsed his country at the time of the expulsion of the tyrants, and used both the lyre and the sword in the cause of liberty. In the beginning, he took part with Pittacus; subsequently against him, when he took the reins of government into his own hands, after the overthrow of the petty tyrants, in order to unite and quiet the divided people. A., expelled from Mitylene by the change of circumstances, wandered about for a long time, and at last fell into the hands of Pittacus, in an attempt to force his way into his native city, at the head of a body of exiles. The latter magnanimously restored him to liberty. His songs breathe the same spirit with his life. A strong, manly enthusiasm for freedom and justice pervades even those in which he sings the pleasures of love and wine. But the sublimity of his nature shines brightest when he praises valor, chastises tyrants, describes the blessings of liberty and the misery of exile. His lyric muse was versed in all the forms

and subjects of poetry, and antiquity attributes to him hymns, odes and songs. A few fragments only are left of all of them, and a distant echo of his poetry reaches us in some odes of Horace. He wrote in the Æolic dialect, and was the inventor of the metre that bears his name, one of the most beautiful and melodious of all the lyric metres. Horace has employed it in many of his odes. German poets, too, have imitated it, as Klopstock. Jani has collected the fragments of his works. Some of them are in the *Analecta* of Brunck, and in the *Anthologia* of Jacobs. There were two other poets of the same name, but of less reputation.

ALCALA DE HENAREZ; a beautiful and extensive city of Spain, in New Castile, seated upon the river Henarez, 11 miles S. W. of Guadalaxara, and 15 E. N. E. of Madrid. The ancient name was *Complutum*, when it was a Roman colony, and here was printed the celebrated *Biblia Complutensia*, or Complutensian Polyglot, at an expense of 250,000 ducats to cardinal Ximenes. It was the first polyglot Bible ever printed. 600 copies were struck off, three on vellum. One of these three was deposited in the royal library at Madrid, a second in the royal library at Turin; a third, supposed to have belonged to the cardinal himself, after passing through various hands, was purchased at the sale of signor Pinelli's library, in 1739, for the late count M'Carthy, of Toulouse, for £483. On the sale of his library, at Paris, 1817, it was sold for over £676 sterling.

ALCALDE (*Spanish*), or **ALCAIDE** (*Portuguese*); the name of a magistrate in the Spanish and Portuguese towns, to whom the administration of justice and the regulation of the police is committed. His office nearly corresponds to that of justice of the peace. The name and the office are of Moorish origin.

ALCALL. (See *Alkali*.)

ALCAMENES. (See *Sculpture*.)

ALCANTARA; an ancient town and frontier fortress in the Spanish province Estremadura, with 3000 inhabitants, built by the Moors, on the Tagus, over which is a splendid bridge, erected by the Romans. One of the three ancient Spanish orders of knighthood, which derives its origin from the brethren of St. Julian del Parero (of the pear-tree), in the 12th century, and fought bravely against the Moors, received, in 1207, from the order of Calatrava, the town of Alcantara, of which it took the name, and was united with the Spanish crown, after the grand master, don

Juan de Zuniga, had delivered up the town to Ferdinand the Catholic, in 1494. The knights, since 1540, have been allowed to marry. The order was very rich. The badge is a gold and green cross, *fleur de lis*; the coat of arms, a pear-tree, with two chevrons.

ALCAVALA is the name of a tax or excise imposed in Spain and the Spanish colonies upon sales of property, whether movable or immovable. The rate of this tax has varied, heretofore, in Spain, from 14 to 6 per cent. It differs from the ordinary excise in this, that an excise is most generally intended to be levied upon consumption, so that each one shall pay in proportion to the goods he may consume; and it is, therefore, founded upon one of the legitimate principles of taxation. But the alcavala, being levied upon all sales, is, in fact, a tax upon internal commerce; it is a forfeit paid by the vender for selling a thing to be used or consumed by another, instead of using or consuming it himself, which he might do free of any such tax. It is, accordingly, one of the most unequal and pernicious taxes that could possibly be levied, since its amount is not governed by the amount of property which the party paying it is worth, nor by the amount that he consumes. It is, to all intents and purposes, an arbitrary tax, and Ullaritz attributes to it the ruin of the Spanish manufactures. The alcavala was introduced under Alphonso XI, and was borrowed from the Arabians. It was imposed at first in 1342, only for a specified period. In 1349, it was made perpetual, and fixed at 10 per cent.

ALCEA. (See *Hollyhock*.)

ALCEDO. (See *Kingfisher*.)

ALCESTE; the daughter of Pelias, and wife of Admetus, king of Thessaly. Her husband was sick, and, according to an oracle, would die, unless some one else made a vow to meet death in his stead. This was secretly done by A. She became sick, and Admetus recovered. After her decease, Hercules visited Admetus, with whom he was connected by the ties of hospitality, and promised his friend to bring back his wife from the infernal regions. He made good his word, compelling Pluto to restore A. to her husband. Euripides has made this story the subject of a tragedy.

ALCHEMY; the art of changing, by means of a secret chemical process, base metals into precious. Probably the ancient nations, in their first attempts to melt metals, observing that the composition of different metals produced masses

of a color unlike either,—for instance, that a mixture like gold resulted from the melting together of copper and zinc,—arrived at the conclusion, that one metal could be changed into another. At an early period, the desire of gold and silver grew strong, as luxury increased, and men indulged the hope of obtaining these rarer metals from the more common. At the same time, the love of life led to the idea of finding a remedy against all diseases, a means of lessening the infirmities of age, of renewing youth, and repelling death. The hope of realizing these ideas prompted the efforts of several men, who taught their doctrines through mystical images and symbols. To transmute metals, they thought it necessary to find a substance which, containing the original principle of all matter, should possess the power of dissolving all into its elements. This general solvent, or *menstruum universale*, which, at the same time, was to possess the power of removing all the seeds of disease out of the human body, and renewing life, was called the *philosopher's stone*, *lapis philosophorum*, and its pretended possessors *adepts*. The more obscure the ideas which the alchemists themselves had of the appearances occurring in their experiments, the more they endeavored to express themselves in symbolical language. Afterwards, they retained this phraseology, to conceal their secrets from the uninitiated. In Egypt, in the earliest times, Hermes, the son of Anubis, was ranked among the heroes, and many books of chemical, magical and alchemical learning are said to have been left by him. These, however, are of a later date. (See *Hermes Trismegistus*.) For this reason, chemistry and alchemy received the name of the *Hermetic art*. It is certain that the ancient Egyptians possessed particular chemical and metallurgical knowledge, although the origin of alchemy cannot, with certainty, be attributed to them. Several Grecians became acquainted with the writings of the Egyptians, and initiated in their chemical knowledge. The fondness for magic, and for alchemy more particularly, spread afterwards among the Romans also. When true science was persecuted under the Roman tyrants, superstition and false philosophy flourished the more. The prodigality of the Romans excited the desire for gold, and led them to pursue the art which promised it instantaneously and abundantly. Caligula made experiments with a view of obtaining gold from orpiment. On the other

hand, Diocletian ordered all books to be burned that taught to manufacture gold and silver by alchemy. At that time, many books on alchemy were written, and falsely inscribed with the names of renowned men of antiquity. Thus a number of writings were ascribed to Democritus, and more to Hermes, which were written by Egyptian monks and hermits, and which, as the *Fabula Smaragdina*, taught, in allegories, with mystical and symbolical figures, the way to discover the philosopher's stone. At a later period, chemistry and alchemy were cultivated among the Arabians. In the 8th century, the first chemist, commonly called *Geber*, flourished among them, in whose works rules are given for preparing quicksilver and other metals. In the middle ages, the monks devoted themselves to alchemy, although they were afterwards prohibited from studying it by the popes. But there was one, even among these, John XXII, who was fond of alchemy. Raymond Lully, or Lullius, was one of the most famous alchemists in the 13th and 14th centuries. A story is told of him, that, during his stay in London, he changed for king Edward I a mass of 50,000 pounds of quicksilver into gold, of which the first rose-nobles were coined. The study of alchemy was prohibited at Venice in 1488. Paracelsus, who was highly celebrated about 1525, belongs to the renowned alchemists, as do Roger Bacon, Basilus, Valentinus and many others. When, however, more rational principles of chemistry and philosophy began to be diffused, and to shed light on chemical phenomena, the rage for alchemy gradually decreased, though many persons, including some nobles, still remained devoted to it. Alchemy has, however, afforded some service to chemistry, and even medicine. Chemistry was first carefully studied by the alchemists, to whose labor and patience we are indebted for several useful discoveries; e. g. various preparations of quicksilver, mineral kermes, of porcelain, &c.—Nothing can be asserted with certainty about the transmutation of metals. Modern chemistry, indeed, places metals in the class of elements, and denies the possibility of changing an inferior metal into gold. Most of the accounts of such transmutation rest on fraud or delusion, although some of them are accompanied with circumstances and testimony which render them probable. By means of the galvanic battery, even the alkalies have been discovered to have a metallic base. The

possibility of obtaining metal from other substances which contain the ingredients composing it, and of changing one metal into another, or rather of refining it, must, therefore, be left undecided. Nor are all alchemists to be considered impostors. Many have labored, under the conviction of the possibility of obtaining their object, with indefatigable patience and purity of heart (which is earnestly recommended by sound alchemists as the principal requisite for the success of their labors). Designing men have often used alchemy as a mask for their covetousness, and as a means of defrauding silly people of their money. Many persons, even in our days, destitute of sound chemical knowledge, have been led by old books on alchemy, which they did not understand, into long, expensive and fruitless labors. Hitherto chemistry has not succeeded in unfolding the principles by which metals are formed, the laws of their production, their growth and refinement, and in aiding or imitating this process of nature; consequently the labor of the alchemists, in search of the philosopher's stone, is but a groping in the dark.

ALCIBIADES. This famous Greek, son of Clinias and Dinomache, was born at Athens, in the 82d Olympiad, about 450 B. C. He lost his father in the battle of Chæronea, and was afterwards educated in the house of Pericles, his grandfather by his mother's side. Pericles was too much engaged in affairs of state to bestow that care upon him, which the impetuosity of his disposition required. In his childhood, A. showed the germ of his future character. One day, when he was playing at dice with some companions in the street, a wagon came up; he requested the driver to stop, and, the latter refusing, A. threw himself before the wheel, exclaiming, "Drive on, if thou darest." He excelled alike in mental and bodily exercises. His beauty and birth, and the high station of Pericles, procured him a multitude of friends and admirers, and his reputation was affected by the dissipation in which he became involved. He was fortunate in acquiring the friendship of Socrates, who endeavored to lead him to virtue, and undoubtedly obtained a great ascendancy over him, so that A. often quitted his gay associates for the company of the philosopher. He bore arms, for the first time, in the expedition against Potidæa, and was wounded. Socrates, who fought at his side, defended him, and led him out of danger. In the battle of Delium, he was among the cavalry who

were victorious, but, the infantry being beaten, he was obliged to flee, as well as the rest. He overtook Socrates, who was retreating on foot, accompanied him, and protected him. As long as the demagogue Cleon lived, A. was principally distinguished for luxury and prodigality, and did not mingle in the affairs of state. On the death of Cleon, 422 B. C., Nicias succeeded in making a peace for 50 years between the Athenians and Lacedæmonians. A., jealous of the influence of Nicias, and offended because the Lacedæmonians, with whom he was connected by the ties of hospitality, had not applied to him, fomented some disagreement between the two nations into an occasion for breaking the peace. The Lacedæmonians sent ambassadors to Athens; A. received them with apparent good will, and advised them to conceal their credentials, lest the Athenians should prescribe conditions to them. They suffered themselves to be duped, and, when called into the assembly, declared that they were without credentials. A. rose immediately, accused them of ill faith, and induced the Athenians to form an alliance with the Argives. A breach with the Lacedæmonians was the consequence. A. commanded several times the Athenian fleets, which devastated the Peloponnesus; but even then he did not refrain from luxury and dissipation, to which he gave himself up entirely after his return. On one occasion, after leaving a nocturnal revel, in the company of some friends, he laid a wager that he would give the rich Hipponicus a box on the ear, and so he did. This act made a great noise in the city, but A. went to the injured party, threw off his garment, and called upon him to revenge himself by whipping him with rods. This open repentance reconciled Hipponicus; he not only pardoned him, but gave him afterwards his daughter, Hipparete, in marriage, with a portion of 10 talents (\$10,500). A., however, still continued his levity and prodigality. His extravagance was conspicuous at the Olympic games, where he entered the stadium, not like other rich men, with one chariot, but with 7 at a time, and gained the 3 first prizes. He seems to have been victor, also, in the Pythian and Nemæan games. All this together drew upon him the hatred of many of his fellow-citizens, and he would have fallen a sacrifice to the ostracism (q. v.), if he had not, in connexion with Nicias and Phæax, who feared a similar fate, artfully contrived to procure the banishment of his most formidable

enemy. Soon afterwards, the Athenians, at the instance of A., resolved on an expedition against Sicily, and elected him commander-in-chief, together with Nicias and Lamachus. But, during the preparations, it happened, one night, that all the statues of Mercury were broken. The enemies of A. charged him with the act, but postponed a public accusation till he had set sail, when they stirred up the people against him to such a degree, that he was recalled, in order to be tried. A. had been very successful in Sicily, when he received the order to return. He obeyed, and embarked, but, on reaching Thurium, disembarked, and concealed himself. Some one asking him, "How is this, Alcibiades? have you no confidence in your country?" he answered, "I would not trust my mother, when my life is concerned; for she might, by mistake, take a black stone instead of a white one." He was condemned to death in Athens, and said, when the news reached him, "I shall show the Athenians that I am yet alive." He now went to Argos, thence to Sparta, where he made himself a favorite, by conforming closely to the prevailing strictness of manners. Here he succeeded in inducing the Lacedæmonians to form an alliance with the Persian king, and, after the unfortunate issue of the Athenian expedition against Sicily, he prevailed on them to assist the inhabitants of Chios in throwing off the yoke of Athens. He went himself thither, and, on his arrival in Asia Minor, roused the whole of Ionia to insurrection against the Athenians, and did them considerable injury. But Agis and the principal leaders of the Spartans became jealous of him, on account of his success, and ordered their commanders in Asia to cause him to be assassinated. A. suspected their plan, and went to Tissaphernes, a Persian satrap, who was ordered to act in concert with the Lacedæmonians. Here he changed his manners once more, adopted the luxurious habits of Asia, and understood how to make himself indispensable to the satrap. As he could no longer trust the Lacedæmonians, he undertook to serve his country, and showed Tissaphernes that it was against the interest of the Persian king to weaken the Athenians entirely. On the contrary, Sparta and Athens ought to be preserved for their mutual injury. Tissaphernes followed this advice, and afforded the Athenians some relief. The latter had, at that time, considerable forces at Samos. A. sent word to their commanders, that, if the licen-

tiousness of the people was suppressed, and the government put into the hands of the nobles, he would procure for them the friendship of Tissaphernes, and prevent the junction of the Phœnician and Lacedæmonian fleets. This demand was granted, and Pisander sent to Athens; by whose means the government of the city was put into the hands of a council consisting of 400 persons. As, however, the council showed no intention to recall A., the army of Samos chose him their commander, and exhorted him to go directly to Athens, and overthrow the power of the tyrants. He wished, however, not to return to his country before he had done it some services, and therefore attacked and totally defeated the fleet of the Lacedæmonians. When he returned to Tissaphernes, the latter, in order not to appear a participator in the act, caused him to be arrested in Sardis. But A. found means to escape; placed himself at the head of the Athenian army; conquered the Lacedæmonians and Persians, at Cyzicus, by sea and land; took Cyzicus, Chalcedon and Byzantium; restored the sovereignty of the sea to the Athenians, and returned to his country, whither he had been recalled, on the motion of Critias. He was received with general enthusiasm; for the Athenians considered his exile the cause of all their misfortunes. But this triumph was of short duration. He was sent with 100 ships to Asia; but, not being supplied with money to pay his soldiers, he saw himself under the necessity of seeking help in Caria, and committed the command to Antiochus, who was drawn into a snare by Lysander, and lost his life, and a part of his ships. The enemies of A. improved this opportunity to accuse him, and procure his removal from office. A. went to Pactyæ in Thrace, collected troops, and waged war against the Thracians. He obtained considerable booty, and secured the quiet of the neighboring Greek cities. The Athenian fleet was, at that time, lying at Ægos Potamos. He pointed out to the generals the danger which threatened them, advised them to go to Sestos, and offered his assistance to force the Lacedæmonian general, Lysander, either to fight, or to make peace. But they did not listen to him, and soon after were totally defeated. A., fearing the power of the Lacedæmonians, betook himself to Bithynia, and was about to go to Artaxerxes to procure his assistance for his country. In the meantime, the 30 tyrants, whom Lysander, after the capture of Athens, had set up there, requested the

latter to cause A. to be assassinated. But Lysander declined, until he received an order to the same effect from his own government. He then charged Pharnabazes with the execution of it. A. was at that time with Timandra, his mistress, in a castle in Phrygia. The assistants of Pharnabazes set fire to his house, and killed him with their arrows, when he had already escaped the conflagration. Timandra buried the body with due honor. Thus A. ended his life, 404 B. C., about 45 years old. He was endowed by nature with distinguished qualities, a rare talent to captivate and rule men, and uncommon eloquence, although he could not pronounce *r*, and stuttered; but he had no fixed principles, and was governed only by external circumstances. He was without that elevation of soul, which steadily pursues the path of virtue; on the other hand, he possessed that boldness which arises from consciousness of superiority, and which shrinks from no difficulty, because always confident of success. Plutarch and Cornelius Nepos, among the ancients, have written his life.

ALCIDES; a surname of Hercules, usually derived from the name of his grandfather, Alcæus, the father of Amphitryon.

ALCINOUS; said to have been a king of the Phæacians, in the island now called *Corfu*. His gardens have immortalized his memory. The passages in which Homer describes his hospitality toward Ulysses, and the ardent desire of the latter to reach his home, are most beautiful. He was a grandson of Neptune.

ALCIPHON; the most distinguished of the Grecian epistolary writers. Nothing is known of his life, and even his age is uncertain. It is probable that he belongs to the second century after Christ. We have 116 fictitious letters by him; the object of which seems to be, to represent the manners, thoughts and feelings of certain strongly-marked classes in the free communication of epistolary intercourse. These letters are distinguished by purity, clearness and simplicity of language and style. Principal editions, Geneva, 1606; Leipsic, 1715, and one in 1798, at the same place, by T. A. Wagner.

ALCMÆON; the son of Amphiarus and Eriphyle (q. v.) of Argos; chosen chief of the seven Epigoni, in which capacity he took and destroyed Thebes. His father, going to war, charged A. to put to death Eriphyle, who had betrayed him. He did so, and was pursued by the furies. An oracle informed him, that, to escape their

vengeance, he must reside in a land which was not in existence when he was cursed by his mother. He at last found rest, for a short time, on an island in the river Achelous, where he married Callirrhoe, the daughter of the god of the river, after repudiating his former wife, Arsinoë. But he did not long enjoy peace. At the request of his wife, he attempted to recover the fatal necklace of Hermione from his former father-in-law, the priest Phlegæus, who caused him to be murdered by his sons.

ALCMAN; a Grecian poet, son of a Spartan slave, born at Sardis, in Lydia, about 670 years B. C. He seems to have lived, for the most part, in Sparta, where he obtained the rights of citizenship. He sang hymns, pæans and other lyrical poems, in the Doric dialect, and gave their polished form to these higher kinds of poetry. His remaining works were collected by F. Th. Welcker (Giessen, 1815, 4to).

ALCMENA; the daughter of Electryon, and wife of Amphitryon. Jupiter loved her, and deceived her by assuming the form of her husband. From this connexion, which continued for 3 nights, sprang Hercules.

ALCOHOL; the purely spirituous part of all liquors that have undergone the vinous fermentation, and derived from none but such as are susceptible of it. As a chemical agent, it is of the highest importance, involving in its various combinations all the grand principles of chemistry.—It has been found that spirit of wine, of sp. gr. .867, when enclosed in a bladder, and exposed for some time in the air, is converted into alcohol of sp. gr. .817, the water only escaping through the coats of the bladder.—Alcohol, obtained by slow and careful distillation, is a limpid, colorless liquid, of an agreeable smell, and a strong, pungent flavor. Its specific gravity varies with its purity, the purest obtained by rectification over chloride of calcium being .791; as it usually occurs, it is .820 at 60°. If rendered as pure as possible by simple distillation, it can scarcely be obtained of a lower specific gravity than .825 at 60°.—Mr. Hutton is said to have succeeded in freezing alcohol, but the fact is regarded as doubtful, as the means by which he effected its congelation were never disclosed. Mr. Walker exposed it to a temperature of -91°, but no congelation took place; it has, therefore, been much used in the construction of thermometers. Even when diluted with an equal weight of water, it requires a cold of 6° below 0 to congeal

it. When of a specific gravity of .825, it boils at the temperature of 176°, the barometrical pressure being 30 inches. In the vacuum of an air-pump it boils at common temperatures. The specific gravity of the vapor of alcohol, compared with atmospheric air, is 4.613.—Alcohol may be mixed in all proportions with water, and the specific gravity of the mixture is greater than the mean of the two liquids, in consequence of a diminution of bulk that occurs on mixture.—The strength of such spirituous liquors as consist of little else than water and alcohol, is of course ascertained by their specific gravity; and, for the purpose of levying duties upon them, this is ascertained by the hydrometer. But the only correct mode of ascertaining the specific gravity of liquids, is by weighing them in a delicate balance against an equal volume of pure water, of a similar temperature.—Alcohol is extremely inflammable, and burns with a pale-blue flame, scarcely visible in bright day-light. It occasions no fuliginous deposition upon substances held over it, and the products of its combustion are carbonic acid and water, the weight of the water considerably exceeding that of the alcohol consumed. According to Saussure, jun. 100 parts of alcohol afford, when burned, 136 parts of water. The steady and uniform heat, which it gives during combustion, makes it a valuable material for lamps.—The action between alcohol and some of the metals, particularly platinum, is remarkable. When a small piece of thin platinum leaf, suspended by a wire, is heated by a spirit lamp, and then quickly put into a glass, in which there is a little alcohol, so that it shall remain just over the surface, and of course in the vapor arising from the alcohol, it continues red-hot, as long as there is any fluid in the jar; which is owing to the vapor undergoing a sort of combustion, and generating heat sufficient to keep the metal in that state. This action affords the means of making a lamp without flame.—There are some substances which communicate color to the flame of alcohol; from boracic acid, it acquires a greenish-yellow tint; nitre and the soluble salts of baryta cause it to burn yellow, and those of strontia give it a beautiful rose color; cupreous salts impart a fine green tinge.—Alcohol dissolves pure soda and potassa, but it does not act upon their carbonates; consequently, if the latter be mixed with alcohol containing water, the liquor separates into two portions, the upper being alcohol deprived, to a consider-

able extent, of water, and the lower the aqueous solution of the carbonate. The alcoholic solution of caustic potassa was known in old pharmacy under the name of *Van Helmont's tincture of tartar*. It is used for purifying potassa.—Alcohol dissolves the greater number of the acids. It absorbs many gaseous bodies. It dissolves the vegetable acids, the volatile oils, the resins, tan and extractive matter, and many of the soaps; the greater number of the fixed oils are taken up by it in small quantities only, but some are dissolved largely.—The composition of alcohol was investigated by Saussure and Gay-Lussac. The result was, that 100 parts of pure alcohol consist of

Hydrogen	13,70	} 100,00.
Carbon	51,98	
Oxygen	34,32	

These numbers approach to 3 proportionals of hydrogen, =3; 2 of carbon, =12; and 1 of oxygen, =8. Or it may be regarded as composed of 1 vol. carburated hydrogen, and 1 vol. of the vapor of water; the 2 volumes being condensed into 1, the specific gravity of the vapor of alcohol, compared with common air, will be 1,599, or, according to Gay-Lussac, 1,613. When alcohol is submitted to distillation with certain acids, a peculiar compound is formed, called *ether* (q. v.), the different ethers being distinguished by the names of the acids employed in their preparation.

ALCORAN. (See *Koran*.)

ALCUDIA. (See *Godoy*.)

ALCUNUS, or ALBINUS, Flaccus; an Englishman, renowned, in his age, for learning; the confidant, instructor and adviser of Charlemagne. He was born in York (according to some, near London) in 732, was educated under the care of the venerable Bede and bishop Egbert, and was made abbot of Canterbury. Charlemagne became acquainted with him in Parma, on his return from Rome, whence he had brought the pallium for a friend; invited him, in 782, to his court, and made use of his services in his endeavors to civilize his subjects. In the royal academy, he was called *Flaccus Albinus*. To secure the benefit of his instructions, Charlemagne established at his court a school, called *Palatina*, and intrusted him with the superintendence of several monasteries, in which A. exerted himself to diffuse a knowledge of the sciences. Most of the schools in France were either founded or improved by him; thus he founded the school in the abbey of St. Martin of Tours, in 796, after the

plan of the school in York. He himself instructed a large number of scholars in this school, who afterwards spread the light of learning through the empire of the Franks. A. took his leave of the court in 801, and retired to the abbey of St. Martin of Tours, but kept up a constant correspondence with Charles to the time of his death, in 804. He left, besides many theological writings, several elementary works in the branches of philosophy, rhetoric and philology; also poems, and a large number of letters, the style of which, however, is not pleasing, and plainly betrays the uncultivated character of the age; nevertheless, he is acknowledged as the most learned and polished man of his time. He understood Latin, Greek and Hebrew. His works appeared in Paris, 1617, fol., and, in a more complete form, in Ratisbon, 1777, 2 vols., fol.

ALDEBARAN, or the *bull's eye*, in astron.; a star of the first magnitude in the southern eye of the constellation Taurus.

ALDEGONDE, St. Philip, of Marnix, lord of mount St. Aldegonde, was born in Brussels, 1538, and studied in Geneva. He drew up, in the beginning of Dec. 1565, the act of compromise for the preservation of the privileges of the Netherlands, which was signed by count Louis of Nassau, Henry of Brederode and himself. The act was directed chiefly against the introduction of the inquisition into the Netherlands, and the members promised to assist each other with their persons and property. It was rejected, however, by the regent Margaret. In 1566, Alva arrived. St. A. fled, with the friends of the prince of Orange, to Germany, and returned with them as their leading counsellor. In 1573, he fell into the hands of the Spaniards, at Maesluys, was afterwards exchanged, and conducted many diplomatic negotiations of the young republic abroad. He defended Antwerp a long time, though not successfully. He assisted in establishing the university of Leyden, and died there, professor of theology, in 1598.

ALDENHOVEN, battle at, March 1, 1793. The engagement near this town, situated between Juliers and Aix la Chapelle, opened the campaign of 1793. The year previous, the Austrians had been obliged, after the battle of Jemappe, to evacuate Belgium, and retire behind the Roer. Dumouriez, at the beginning of the year 1793, threatened Holland with an invasion. To prevent this, and to raise the siege of Maestricht, the prince of Coburg drew together his army, consisting of

40,000 men, behind the Roer, and forded this river, March 1, in 2 columns, at Duren and Juliers. In the engagement which ensued, the French lost about 6000 men killed and wounded, and 4000 prisoners. On the following day, Aix la Chapelle and Liege were occupied, the siege of Maestricht raised, and the French actively pursued. At Neerwinden the French halted, and received a reinforcement, consisting of the corps destined to invade Holland, but were beaten here, March 18, a second time.

ALDER. The alder or owler (*betula alnus*) is a tree which grows in wet situations, and is distinguished by its flower-stalks being branched, its leaves being roundish, waved, serrated and downy at the branching of the veins beneath. It is common in Europe and Asia, and the United States of America. There are few means of better employing swampy and morassy grounds, than by planting them with alders; for, although the growth of these trees is not rapid, the uses to which they are applicable are such as amply to compensate for the slowness with which they come to perfection. The wood of the alder, which is in great demand for machinery, is frequently wrought into cogs for mill-wheels, as it is peculiarly adapted for all kinds of work which are to be kept constantly in water. It is consequently used for pumps, sluices, pipes, drains and conduits of different descriptions, and for the foundation of buildings situated in swamps. For these purposes, it has been much cultivated in Flanders and Holland. It is commonly used for bobbins, women's shoe-heels, ploughmen's clogs, and numerous articles of turnery ware. This wood also serves for many domestic and rural uses, for spinning-wheels, troughs, the handles of tools, ladders, cartwheels, &c. The roots and knots furnish a beautifully-veined wood, nearly of the color of mahogany, and well adapted for cabinet-work. The bark may be advantageously used in the operations of tanning and leather-dressing, and by fishermen for staining their nets. This and the young twigs are sometimes employed in dyeing, and yield different shades of yellow and red. The Laplanders chew the bark of the alder, and dye their leather garments red with the saliva thus produced. With the addition of copperas, it yields a black dye, used to a considerable extent in coloring cotton. In the Highlands of Scotland, we are informed that young branches of the alder, cut down in the summer, spread over the fields, and

left during the winter to decay, are found to answer the purpose of manure. The fresh-gathered leaves, being covered with a glutinous moisture, are said to be sometimes strewed upon floors to destroy fleas, which become entangled in it, as birds are with bird-lime.

ALDERMAN (*aldor*, elder, and *man*); among the ancient Saxons, the second order of nobility. It was synonymous with the Latin *comes*, the *eorla* or *jarl* of the Danes (which after the Danish times superseded it), and the *senior* and *major* of the Franks. The aldermen were at first governors of counties, and were admitted into the *wittenagemot*, or great council of the nation; gave their consent to the public statutes; kept order among the freeholders at the county courts; in times of war, appeared at the head of the military forces of their shires, and were called *dukes*, or *heretogen*, (the Germ. *herzog*). They were at first appointed by the king, and were afterwards elected by the freeholders of the shire; at first the office was during good behavior, but finally became hereditary. Aldermen, at present, are officers associated with the mayor of a city, for the administration of the municipal government, both in England and the United States. In some places, they act as judges in certain civil and criminal cases. In London, there are 26 aldermen, who preside over the 26 wards of the city, and from whose number the mayor is elected annually.

ALDHelm. (See *Adhelm*.)

ALDERNEY; an island on the coast of Normandy, about 8 miles in circumference. Though within 7 miles of cape la Hogue, it is subject to the crown of Great Britain. With Guernsey, Jersey and Sark, it forms the only part of the possessions of William the Conqueror that now remain under the government of England. A. is about 30 miles from the nearest part of the English coast, and about 18 from Guernsey. The *race of A.* is a name given to the strait running between the coast of France and this island. The town of this name, about 2 miles from the harbor, is but poorly built, and contains about 1000 inhabitants. In stormy weather, the whole coast is dangerous, particularly from a ridge of rocks, called the *Caskets*, which form numerous eddies that have often proved fatal to mariners. The air is salubrious, the soil fertile and much cultivated; but the custom of gavelkind dividing the lands into small parts, keeps the people in a state of poverty. They send grain to England. In 1119,

Henry, duke of Normandy, son of king Henry I, with many nobles, was lost near this island; and in 1744, the Victory, of 116 guns, admiral sir John Balchen, with 1100 marines and sailors, was lost near the coast of A.

ALDINE EDITIONS; the name given to the works which proceeded from the press of the family of Aldus Manutius. (See *Manutius*.) Recommended by their intrinsic value, as well as by a splendid exterior, they have gained the respect of scholars, and the attention of book-collectors. Many of them are the first editions of Greek and Roman classics, and some have not been printed again; as *Rhetores Græci*, *Alexander Aphrodisiensis*. The text of the modern classical authors printed by them, as Petrarca, Dante, Boccaccio and others, was critically revised from manuscripts. Generally speaking, their editions are distinguished for correctness, though their Greek classics are inferior, in this respect, to their Latin and Italian. These editions, especially those of Aldus Manutius, the father, are of importance in the history of printing. Aldus deserves much credit for his beautiful types. He had nine kinds of Greek types, and no one before him printed so much and so beautifully in this language. Of the Latin character he procured 14 kinds of type. Among the latter is the *antiqua*, with which *Bembus de Etna*, 1495, 4to., is printed; a very beautiful character. The Italic characters, invented and cut by Francesco of Bologna, and brought into use by Aldus, who employed them for the collection of editions of ancient and modern classics, in 8vo. (the first of which, Virgil, appeared in 1501), are less handsome; they are too stiff and angular, and faulty in a technical respect, on account of the many letters connected together. He had even three kinds of Hebrew types. He was no friend to ornaments of the capitals, roses, vignettes and the like. The *Hypnerotomachia Poliphili*, 1499, fol., is his only work furnished with ornaments of that kind and wood-cuts. His paper is invariably strong and white. He introduced the custom of striking off some copies of an edition on better, finer and whiter paper than the rest; first, in the *Epistola Græcæ*, 1499. He also first published single copies on large paper, in the edition of Philostratus, 1501. He printed also the first impressions on blue paper, beginning with some copies of the *Libri de Re Rustica* and Quinctilian, both in 1514. His impressions on parchment were em-

inently beautiful. His ink is of excellent quality. At the same time, his prices were fair. His Aristotle, 5 vols. fol., cost only 11 ducats. The press sunk in reputation under the care of his son Paul, and his grandson Aldus. When it was broken up, in 1597, after a duration of 100 years, and after producing 908 editions, it was distinguished in nothing from other presses in the country. The Aldine editions, especially those of the father, were early sought for. The printers in Lyons, and the Giunti in Florence, in 1502, found it advantageous to publish inferior and spurious reprints. In modern times, they have been highly prized by scientific collectors. The *Horæ b. Mar. virg.*, of 1497 (lately sold for 100 ducats), the Virgil of 1501, and the *Rhetores Græci*, not to mention the very rare editions between 1494 and 1497, are particularly scarce and valuable. The bookseller and bibliographer Renouard, in Paris, and the grand duke of Tuscany, possess the most complete collections. Of the former's excellent work on the press of Aldus, a supplementary volume appeared in 1812. A list of all genuine Aldine editions is given in the appendix to the 1st vol. of Ebert's *Bibliographical Lexicon*.—See, also, *Annales de l'Imprimerie des Aldes, ou Histoire des trois Manuce, et de leurs éditions; par Ant. Aug. Renouard*; second edit., Paris, 1825, 3 vols. 8vo.; and *Repertorium Bibliographicum, in quo Libri omnes ab Arte Typographica inventa usque ad Annum MD. typis expressi, ordine Alphabetico enumerantur vel accuratius recluduntur; Opera L. Hain*; Stuttgart. The second part of the first vol. of this work has been published quite recently.

ALDINI, Antony, was born in 1756, in Bologna; pursued there, and afterwards in Rome, the study of law; became professor of law in Bologna; was sent to Paris by his fellow-citizens, when his native town, in the days of the revolution, withdrew from the pope's dominion; and was afterwards a member of the council of elders who presided over the Cisalpine republic. In 1801, he became a member of the *consulta* of Lyons, and afterwards president of the council of state, from which he was excluded, at the instance of the vice-president, count Melzi. Napoleon appointed him, in 1805, secretary of state for the kingdom of Italy, with the title of count. He gained, in 1819, the confidence of the Austrian government, and now lives in Milan. He had built, with great expense, one of the most beautiful palaces in the park of Montmo-

rency, near Paris, and adorned it with the finest productions of Italian art. It was injured so much at the second occupation of Paris, in 1815, that nothing could be done with it, except to sell it to the *bande noire*. (q. v.)

ALDOBRANDINI; the name of a princely family at Rome, celebrated in the history of art on account of an antique fresco, in their villa, representing a wedding, and called by the name of the *Aldobrandine wedding*. It was discovered in the time of Clement VIII, not far from the church Santa Maria Maggiore, in the district where, formerly, were the gardens of Mæcenæus, and carried thence into that villa. Winckelmann supposed it to be the wedding of Peleus and Thetis; the count Bondy, that of Manlius and Julia.—Several scholars, also, of this name have distinguished themselves, especially Sylvester A., famous for his knowledge of law, and his brother Thomas, both in the 16th century.

ALDRED; abbot of Tavistock, and afterwards bishop of Worcester, 1046. He was the first English bishop who visited Jerusalem, and after his return was raised to the see of York, an elevation, which, when he appeared at Rome, the pope refused to ratify, on account of his ignorance and simony. A.'s solicitations, however, prevailed, and he received the pallium from the pontiff. On the death of Edward the Confessor, he crowned Harold, and afterwards the Conqueror, whose esteem he enjoyed, and whose power he made subservient to the views of the church. When he had received some indignities from a governor of York, he flew to London, and, with all the indignation and haughtiness of an offended prelate, demanded vengeance, and pronounced a curse on the head of William. His wrath was with difficulty pacified by the entreaties of the sovereign and his nobles, and the curse was recalled, and changed into a blessing. It is said that he died with grief, on seeing the north of England desolated by the ravages of Harold and Canute, sons of Sweyn, Sept. 11, 1068.

ALDUS. (See *Mamutius*.)

ALE; a fermented liquor obtained from an infusion of malt; differing from beer chiefly in having a less proportion of hops. (See *Brewing*.) We first hear of ale in Egypt. The natives of Spain, the inhabitants of France, the aborigines of Britain and Germany, all used an infusion of barley; and it was called by the various names of *cælia* and *ceria* in the first

country, *cerevisia* in the second, and *curmi* in the two last; all literally signifying *strong water*. Tacitus, Diodorus Siculus and Pliny speak of this beverage as common among the nations just mentioned. Henry's History of England (8vo. vol. ii. p. 364), Hume's Hist. (vol. ii. p. 224), and Pinkerton's Geography (vol. i. p. 65), give the history of this liquor in England. Dr. Stubbs (Phil. Trans. No. 27) says that ale may be preserved from turning sour on long voyages, by putting in every rundlet of five gallons, after being placed in a cask on board the ship, not to be moved again, two new-laid eggs whole. The value of this receipt, however, has been disputed. The duties on ale and beer make a considerable branch of the revenue of England. They were first imposed in 1643, and again during the reign of Charles II.

ALECTO. (See *Furies*.)

A-LEE; the situation of the helm when it is pushed down to the lee side of the ship, in order to put the ship about, or to lay her head to the windward.

ALEGAMBE, Philip; an author whose writings afford a great amount of information respecting the order of the Jesuits. He was a Jesuit, born at Brussels, 1592. His *Bibliothèque des auteurs Jesuites* was published at Antwerp, 1643; *Vita P. Joannis Cardin. Lusitani ex Societ. Jesu*, 12mo., Rome, 1649; *Herôes et Victimæ Caritatis Societ. Jesu*, 4to. Rome, 1658; *Mortes illustres et gesta eorum de Societ. Jesu, qui in Odium Fidei ab Hæreticis vel aliis occisi sunt*, fol. Rome, 1657. A. died at Rome, 1652. He was for some time confessor of the emperor Ferdinand, and afterwards retained at Rome by the general of his order as secretary, to prepare the Latin despatches to Germany. The *Bibliothèque*, his chief work, was also published in Latin, Rome, 1675.

ALEMANNI; that is, *all men*, or *various sorts of men*; the name of a military confederacy of several German tribes, which, at the commencement of the 3d century, approached the Roman territory. Their settlements extended, on the east side of the Rhine, from lake Constance, the Elbe and the Danube, to the Maine and the Lahn. Their neighbors on the east were the Suevi, and, farther on, the Burgundians. The principal tribes composing the Alemannic league were the Teucteri, Usipetes, Chatti and Vangiones. Caracalla first fought with them, on the southern part of the Rhine, in 211, but did not conquer them; Severus was likewise unsuccessful. Maximin was the first who

conquered and drove them beyond the Rhine, in 236. After his death, they again invaded Gaul; but Posthumius defeated them, pursued them into Germany, and fortified the boundary with ramparts and ditches; of which the mounds near Phöring, on the Danube, the rampart extending through Hohenlohe to Jaxthausen, and the ditch with palisades on the north side of the Maine, are remnants. (See *Devil's Wall*.) But the A. did not desist from their incursions, and were successively repulsed by Lollianus, the successor of Posthumius, by the emperor Probus, in 282, and afterwards by Constantius Chlorus. Nevertheless, during the disturbances in the empire, and until Constantine became its sole master, they occupied the tract from Mentz to Strasburg. At last, Julian was sent, when Cæsar, to Gaul, in 357. He again repulsed the A., and forced their princes, of whom there were then eight, to sue for peace. Their whole force, in the chief battle against Julian, amounted to 35,000 men. When the migration of the northern tribes began, the A. were among the hordes that overran Gaul. They spread along the whole western side of the Rhine, and, in the latter half of the 5th century, over all Helvetia. At last, Clovis broke their power in 496, subdued them, and deprived them of a large portion of their possessions. Many of them fled to Theodoric, king of the Ostrogoths, into Italy and the Alps; the greater part, however, returned to their own country.

ALEMBERT, Jean le Rond d', one of the most distinguished mathematicians and literary characters of the 18th century, was born in Paris, in 1717, but was exposed by his parents, madame de Tencin and the poet Destouches, provincial commissary of artillery. The child appeared so weak, that the police officer, instead of carrying it to the foundling hospital, committed it to the care of the wife of a poor glazier. Perhaps he had secret instructions to do so; for, although his parents never publicly acknowledged him, they did not withdraw their care from him; on the contrary, his father afterwards settled upon him an income of 1200 livres, a sum which was then sufficient to procure the necessities of life. He showed much facility in learning, and at the age of 4 years, was sent to a boarding-school. He was but 10 years old, when the principal, a man of merit, declared that he could teach him no more. He entered the college Mazarin at the age of 12. His talents surprised his in-

13*

structors, who thought they had found in him a second Pascal to support the cause of the Jansenists, with whom they were closely connected. He wrote, in the first years of his philosophical studies, a commentary on the epistle of Paul to the Romans. But, when he began to study mathematics, this science captivated him so much, that he renounced all theological disputes. He left college, studied law, became an advocate, but did not cease to occupy himself with mathematics, though he was almost entirely destitute of property. A pamphlet on the motion of solid bodies in a fluid, and another on the integral calculus, which he laid before the academy of sciences in 1739 and 1740, showed him in so favorable a light, that the academy received him, in 1741, into the number of its members. He soon after published his famous works on dynamics, *Traité de dynamique*, and on fluids, *Traité des fluides*. In 1746, his Theory of the Winds obtained the prize offered by the academy of Berlin, of which he was chosen a member. Among his communications to this academy, two are highly distinguished—that on pure analysis, and the one which treats of the vibrations of strings. He also took a part in the investigations which completed the discoveries of Newton respecting the motion of the heavenly bodies. Whilst Euler and Clairaut were engaged in these, he delivered, in 1747, to the academy of sciences, a solution of the problem proposed to determine what disturbances are occasioned by the mutual attraction of the planets, in their elliptical revolutions round the sun, and what their motion would be, if they were acted on only by the attractive power of the sun. He continued these labors for several years, and published, at intervals, various important astronomical treatises, including one on the precession of the equinoxes; also his experiment on the resistance of fluid bodies, and a number of dissertations on other subjects; works, of the value of which there is but one opinion among scholars, but which produced a coldness on the part of Euler and others.—In the first fervor of his fondness for mathematics, he had, for a time, become indifferent to belles-lettres; but his early love of them soon revived, after his most important discoveries, when mathematical investigations ceased to afford him so rich a harvest of new truths, or he felt the necessity of relaxation. He entered on this new career, with his introduction to the *Encyclopédie*, and it will always be a pattern of style in

treating of scientific subjects, uniting, as it does, elegance and precision. D'A. comprised, in this introduction, the essence of all his knowledge of mathematics, philosophy and literature, acquired in a study of 20 years, and this was all that was known at that time, in France, on these subjects. He undertook to prepare the mathematical part of the *Encyclopédie*, and wrote a great number of excellent articles. His name being prefixed to this work, he shared its fate, and exposed himself to numberless quarrels. D'A. soon after entered the French academy, and continued to cultivate the belles-lettres, together with mathematics. His literary works, on account of their profoundness and accuracy, met with the approbation of all sound minds; they are distinguished by purity of language, clearness of style, and force of thought. Although he experienced much persecution on account of his connexion with the *Encyclopédie*, and was neglected by the government of his country, he would not accept the invitations of Frederic II to settle in Berlin, nor the offers of the Russian empress, who desired him to take charge of the education of her son, with a pension of 100,000 livres. His country learned his worth from foreigners; and the king of Prussia gave him a pension, when the academy of sciences, at Paris, refused him the salary to which he was justly entitled. Though his income was always moderate, his beneficence was great. He lived above 30 years, in the plainest manner, in the house of the woman who had brought him up, and left these lodgings only when his health compelled him. His long attachment to Mlle. de l'Espinasse shows that he was not destitute of a feeling heart. Valuing independence more than any thing else, he avoided the society of the great, and sought only that into which he could enter with cheerfulness and frankness. The reputation which he enjoyed, the intimate friendship between him and Voltaire, and his great merits, procured him many enemies. He had a literary contest with J. J. Rousseau, on account of an article on Geneva, intended for the *Encyclopédie*. His religious character seems to have been that of a sober deist. He died of the stone, being unwilling to submit to an operation, in 1783, in the 66th year of his age. Frederic II, who had, in 1763, become personally acquainted with d'A., maintained a correspondence with him, which was published after the death of both, and is very inter-

esting. The enemies of d'A., with a view of depreciating his merits, called him a good geometrician among the literati, and a good belles-lettres scholar among the geometricians. The truth is, that his rank is somewhat higher in geometry than in belles-lettres; but, owing to the influence of style upon the fate of writings, his works in the department of belles-lettres, will continue to interest longer than his mathematical treatises. The former are collected in the *Œuvres philosophiques, historiques et littéraires de d'Alembert*, 18 vols. Paris, 1809. Condorcet has drawn his character in his *Éloge*.

ALENÇON, capital of the French department of the Orne, on the Sarthe, contains 1528 houses, and 13,500 inhabitants, a college, a *société d'émulation*, a library, and considerable manufactories of bone-lace, etamine, woollen stockings, leather, &c. The diamonds of A., so called, are found in the neighboring quarries. 3000 women are employed here in manufacturing point-lace. Also a kind of linen, *toile d'Alençon*, enjoys much reputation. The neighboring country has become richer by the division of the large estates, and the town itself more industrious.

ALENTO, Julius; a Jesuit, born at Brescia, in the territory of Venice. He was a missionary in China, arrived, in 1610, at Macao, and left several works in the Chinese language. He died 1649.

ALEPPO, or HALEP; capital of the Asiatic pashalic of the same name, which is the second in the Turkish empire, and comprises the northern part of Syria, including mount Lebanon. It contains 9,800 square miles, and 450,000 inhabitants. The Orontes, abounding in fish, is the only river of the pashalic, which, under any other government, would long since have been connected, by a canal running through a level plain, with the Euphrates. The country produces chiefly wheat, barley, cotton, indigo, sesamum, &c., and, in the mountains, mulberry, olive and fig-trees. Halep, the seat of a pasha of three tails, a Greek patriarch, an Armenian, a Jacobite, and a Maronite bishop, is, within the walls, about 3½ miles in circumference; including the suburbs, however, about 7 or 8. It contains 14,137 houses, 200,000 inhabitants (24,000 of whom are Christians), 100 mosques, 3 Catholic churches, 1 Protestant church, a synagogue, many manufactories of silk, cotton, &c. It carries on considerable trade, forming the centre of the intercourse between the Persian gulf and the

Mediterranean sea. Most of the inhabitants are Mohammedans, the rest Jews, oriental Christians, and Europeans. The city lost two thirds of its houses, and 8000 inhabitants, by the earthquakes in 1822 and 1823. Lon. $37^{\circ} 10' E.$; lat. $36^{\circ} 11' N.$

ALESIA, the capital of the Mandubii, a Gallic people, who dwelt in what is now Burgundy, was an important fortress, the siege and taking of which was, undoubtedly, the greatest military exploit of Cæsar. All Gaul had risen against the Romans, even the Ædui, the old allies of the oppressors; but Cæsar conquered them under Vercingetorix, and besieged them in Alesia. 80,000 men were shut up in the town; Cæsar, with 60,000 troops, lay before it. He erected, immediately, a line of contravallation, extending 4 leagues, in order to reduce the place by famine, since its situation on a hill, 1500 feet high, and on all sides abrupt, between the rivers Ope and Operain, rendered an attack impossible. Vercingetorix, after making several furious but unsuccessful sallies, called all the Gauls to arms, and, in a short time, 250,000 men appeared before the place. Cæsar had, in the mean time, completed his line of circumvallation, protecting himself against any attack from without by a breast-work, a ditch with palisades, and several rows of pit-falls. These defences enabled him to repel the desperate attack of 330,000 Gauls against the 60,000 Romans under his command, though he was assailed both in front and rear. The Gauls were unable to force his lines at any point. Vercingetorix, reduced to extremity by hunger, was compelled to surrender, without having carried into execution his design of murdering all the persons in the town who were unqualified for battle. But the whole tribe of the Mandubii, which had been expelled from the city by the Gauls, and were not allowed by the Romans to pass into the open country, died of famine between the two camps. Afterwards, A. rose again to a flourishing condition, until it was destroyed, in 864, by the Normans. Vestiges of wells, aqueducts, broken tiles, coins and the like, found in the fields where A. once stood, prove the former existence of the city. At the foot of the ancient citadel (now mount Auxois), is a village called *Alise* (depart. Côte d' Or), with several hundred inhabitants.

ALESSANDRIA. (See *Alexandria*.)

ALEUTIAN ISLANDS; a group belonging to Russia, and separating the sea of Kamtschatka from the northern part of

the Pacific ocean, extending nearly 700 miles from E. to W., from lon. 169° to 183° E.; lat. 53° N. They form a chain connecting Asia and America, and include what have generally been called, in English geographical works, the *For islands*, *Behring's* and *Copper islands*, and the group formerly divided into the *Aleutian* and *Andrenovian isles*, altogether above 100, comprising about 10,000 square miles, all rocky, some containing volcanoes and hot springs. The most known and largest are the Oonalashka, Behring's island and Kodiak. The principal place is Alexandria, the seat of the governor, and the chief emporium. No tree grows on these islands, and no domestic animal thrives there; but they afford an abundance of valuable fur and of fish. The inhabitants belong to the same stock with the natives of Kamtschatka; they are a harmless race of hunters and fishers. Their number has been reduced by the small pox and the venereal disease to 1000. The Russians, to whom they pay tribute, visit these inhospitable islands only for the sake of fur. The officers of the Russian-American company treat the inhabitants so cruelly, that Krusenstern made a report about it to the Russian government.—Müller's *Sammlung Russischer Geschichte*, vol. iii.; Coxe's *Account of the Russian Discoveries*; Tooke's *View of the Russian Empire*; Krusenstern's *Voyage round the World*; Cooke, &c.

ALEXANDER THE GREAT, son of Philip of Macedon, was born in Pella, B. C. 356. His mother was Olympias, the daughter of Neoptolemus of Epirus. In his early youth, he showed the marks of a great character. When he heard of the victories of Philip, he exclaimed, "My father will not leave any thing for me to do." Philip confided the charge of his education first to Leonidas, a relation of his mother, and to Lysimachus; afterwards to Aristotle. At a distance from the court, this great philosopher instructed him in all the branches of human knowledge, especially those necessary for a ruler, and wrote for his benefit a work on the art of government, which is unfortunately lost. As Macedon was surrounded by dangerous neighbors, Aristotle sought to cultivate in his pupil the talents and virtues of a military commander. With this view he recommended to him the reading of the *Iliad*, and revised this poem himself. The copy revised by Aristotle was the favorite book of A., who never lay down without having read some pages in it. At the same time he formed

his body by gymnastic exercises. When very young, as every body knows, he tamed the horse Bucephalus, which no one else dared to mount. When he was 16 years old, Philip, setting out on an expedition against Byzantium, delegated the government to him during his absence. He performed prodigies of valor, two years later (338), in the battle at Chæronea, where he obtained great reputation by conquering the sacred band of the Thebans. "My son," said Philip, after the battle, embracing him, "seek another empire, for that which I shall leave you is not worthy of you." The father and son, however, quarrelled when Philip repudiated Olympias. A., who took the part of his mother, was obliged to flee to Epirus, to escape the vengeance of his father; but he soon obtained pardon, and returned. He afterwards accompanied Philip on an expedition against the Triballi, and saved his life in a battle. Philip, having been elected chief commander of the Greeks, was preparing for a war against Persia, when he was assassinated, B. C. 336. A., not yet 20 years of age, ascended the throne, punished the murderer, went into the Peloponnesus, and received, in the general assembly of the Greeks, the chief command in the war against Persia. After his return, he found the Illyrii and Triballi in arms, went to meet them, forced a passage through Thrace, and was every where successful. But the Thebans, having heard a rumor of his death, had taken up arms, and the Athenians, urged by Demosthenes, were about to join them. A. hastened to prevent this junction, appeared before Thebes, and, having summoned it in vain to surrender, took and destroyed the city. 6000 of the inhabitants were put to the sword, and 30,000 carried into captivity. The house and family of the poet Pindar alone were spared. This severity terrified all Greece. The Athenians suffered less. A. demanded only the banishment of Charmides, who had spoken most bitterly against him. Leaving Antipater to govern in his stead in Europe, and being confirmed as commander in chief of the Greek forces, in the general assembly of the Greeks, he crossed over into Asia, in the spring of 334, with 30,000 foot and 5,000 horse. To secure the protection of Minerva, he sacrificed to her, on the fields of Ilium, crowned the tomb of Achilles, and congratulated this hero, from whom he was descended through his mother, on his good fortune in having had such a friend as Patroclus, and such a poet as

Homer. When he approached the Granicus, he learned that several Persian satraps, with 20,000 foot, and as many horse, awaited him on the other side. A., without delay, led his army through the river, and obtained a complete victory; having overthrown, with his lance, Mithridates, the son-in-law of Darius, and exposed himself to every danger. The Macedonians, encouraged by his example, bore down every thing before them, and the whole army crossed the river. The Greek auxiliaries of the Persians, who were formed in phalanxes, resisted longer, and were all destroyed, except 2000, who were taken prisoners. A. performed splendid funeral ceremonies in honor of those of his army who had fallen, and granted privileges to their fathers and children. Most of the cities of Asia Minor, even Sardis, opened their gates to the victor. Miletus and Halicarnassus resisted longer. A. restored democracy in all the Greek cities. In passing through Gordium, he cut the Gordian knot, and conquered Lycia, Ionia, Caria, Pamphylia and Cappadocia. But a dangerous sickness, brought on by bathing in the Cydnus, checked his course. On this occasion he showed the elevation of his character. He received a letter from Parmenio, saying that Philip, his physician, had been bribed by Darius to poison him. A. gave the letter to the physician, and at the same time drank the potion which he had prepared for him. Scarcely was he restored to health, when he advanced towards the defiles of Cilicia, whither Darius had imprudently betaken himself, with an immense army, instead of awaiting his adversary on the plains of Assyria. The second battle took place near Issus, between the sea and the mountains. The disorderly masses of the Persians were broken by the charge of the Macedonians, and fled in wild confusion. On the left wing, 30,000 Greeks, in the pay of the Persian king, resisted longer; but they also were obliged to yield. The treasures and family of Darius fell into the hands of the conqueror. The latter were treated most magnanimously. A. did not pursue Darius, who fled towards the Euphrates, but, in order to cut him off from the sea, turned towards Cœlœyria and Phœnicia. Here he received a letter from Darius, proposing peace. A. answered, that, if he would come to him, he would restore to him not only his mother, wife and children without ransom, but also his empire. This answer produced no effect. The victory at Issus

had opened the whole country to the Macedonians. A. took possession of Damascus, which contained a large portion of the royal treasures, and secured all the towns along the Mediterranean sea. Tyre, imboldened by the strength of its situation, resisted, but was taken, after seven months of incredible exertions, and destroyed. A. continued his victorious march through Palestine, where all the towns surrendered, except Gaza, which shared the fate of Tyre. Egypt, weary of the Persian yoke, received him as a deliverer. In order to confirm his power, he restored the former customs and religious rites, and founded Alexandria, which became one of the first cities of ancient times. Hence he went through the desert of Libya, to consult the oracle of Jupiter Ammon. Some historians assert that the god recognised him as his son, but others reject all that has been related respecting this journey. At the return of spring, A. marched against Darius, who, in the meantime, had collected an army in Assyria, and rejected the proposals of A. for peace. A battle was fought at Gaugamela, not far from Arbela, in 331. Justin estimates the forces of Darius at 500,000 men; Diodorus, Arrian and Plutarch at more than double that number. Notwithstanding the immense numerical superiority of his enemy, A. was not a moment doubtful of victory. At the head of his cavalry, he attacked the Persians, and routed them immediately; he then hastened to the aid of his left wing, which had been, in the mean time, severely pressed. His wish was to take, or kill, the king of Persia. The latter was on an elevated chariot, in the midst of his body-guards. These, when they saw how A. overthrew every thing, fled. Darius then mounted a horse, and fled likewise, leaving his army, baggage and immense treasures to the victor. Babylon and Susa, where the riches of the East lay accumulated, opened their gates to A., who directed his march towards Persepolis, the capital of Persia. The only passage thither, Pylæ Persidis, was defended by 40,000 men under Ariobarzanes. A. attacked them in the rear, routed them, and entered Persepolis triumphant. From this time the glory of A. began to decline. Master of the greatest empire in the world, he became a slave to his own passions; gave himself up to arrogance and dissipation; showed himself ungrateful and cruel, and, in the arms of pleasure, shed the blood of his bravest generals. Hitherto sober and moderate, this hero,

who strove to equal the gods, and called himself a god, sunk to the level of vulgar men. Persepolis, the wonder of the world, he burned in a fit of intoxication. Ashamed of this act, he set out with his cavalry to pursue Darius. Learning that Bessus, satrap of Bactriana, kept the king prisoner, he hastened his march with the hope of saving him. But Bessus, when he saw himself closely pursued, caused Darius to be assassinated (B. C. 330), because he was an impediment to his flight. A. beheld, on the frontiers of Bactriana, a dying man, covered with wounds, lying on a chariot. It was Darius. The Macedonian hero could not restrain his tears. After interring him with all the honors usual among the Persians, he took possession of Hyrcania, the land of the Marsi, and Bactriana, and caused himself to be proclaimed king of Asia. He was forming still more gigantic plans, when a conspiracy broke out in his own camp. Philotas, the son of Parmenio, was implicated. A., not satisfied with the blood of the son, caused the father also to be secretly murdered. This act of injustice excited general displeasure. At the same time, his power in Greece was threatened. Agis, king of Sparta, had collected 30,000 men to shake off the Macedonian yoke; but Antipater, at the head of a numerous army, overcame the Spartans, and dissolved the league of the Greeks. In the mean time, A. marched, in the winter, through the north of Asia, as far as it was then known, checked neither by mount Caucasus nor the Oxus, and reached the Caspian sea, hitherto unknown to the Greeks. Insatiable of glory, and thirsting for conquest, he spared not even the hordes of the Scythians. Returning to Bactriana, he hoped to gain the affections of the Persians, by assuming their dress and manners, but this hope was not realized. The discontent of the army gave occasion to the scene which ended in the death of Clitus. A., whose pride he had offended, killed him with his own hand at a banquet. Clitus had been one of his most faithful friends and bravest generals, and A. was afterwards a prey to the keenest remorse. In the following year, he subdued the whole of Sogdiana. Oxyantes, one of the leaders of the enemy, had secured his family in a castle built on lofty rocks. The Macedonians stormed it. Roxana, the daughter of Oxyantes, one of the most beautiful virgins of Asia, was among the prisoners. A. fell in love with and married her. Upon the news of this,

Oxyantes thought it best to submit, and came to Bactra, where A. received him with distinction. Here a new conspiracy was discovered, at the head of which was Hermolaus, and, among the accomplices, Callisthenes. All the conspirators were condemned to death, except Callisthenes, who was mutilated, and carried about with the army in an iron cage, until he terminated his torments by poison. A. now formed the idea of conquering India, the name of which was scarcely known. He passed the Indus, and formed an alliance with Taxilus, the ruler of the region beyond this river, who assisted him with troops and 130 elephants. Conducted by Taxilus, he marched towards the river Hydaspes, the passage of which, Porus, another king, defended at the head of his army. A. conquered him in a bloody battle, took him prisoner, but restored him to his kingdom. He then marched victoriously through India, established Greek colonies, and built, according to Plutarch, 70 towns, one of which he called *Bucephala*, after his horse, which had been killed on the Hydaspes. Intoxicated by success, he intended to advance as far as the Ganges, when the murmurs of his army compelled him to return, in doing which he was exposed to great dangers. When he had reached the Hydaspes, he built a fleet, in which he sent a part of his army down the river, while the rest proceeded along the banks. On his march, he encountered several Indian princes, and, during the siege of a town belonging to the Malli, was severely wounded. Having recovered, he continued his march, sailed down the Indus, and thus reached the sea. Nearchus, his admiral, sailed hence to the Persian gulf, while A. directed his march by land to Babylon. He had to wander through immense deserts, in which the greater part of his army, destitute of water and food, perished in the sand. Only the fourth part of the troops, with which he had set out, returned to Persia. On his route, he quelled several mutinies, and placed governors over various provinces. In Susa, he married two Persian princesses, and rewarded those of his Macedonians who had married Persian women, because it was his intention to unite the two nations as closely as possible. He distributed rich rewards among his troops. At Opis, on the Tigris, he declared his intention of sending the invalids home with presents. The rest of the army mutinied; but he persisted, and effected his

purpose. Soon after, his favorite, Hephestion, died. His grief was unbounded, and he buried his body with royal splendor. On his return from Ecbatana to Babylon, the magicians are said to have predicted that this city would be fatal to him. The representations of his friends induced him to despise these warnings. He went to Babylon, where many foreign ambassadors waited for him, and was engaged in extensive plans for the future, when he became suddenly sick, after a banquet, and died in a few days, 323 B. C. Such was the end of this conqueror, in his 32d year, after a reign of 12 years and 8 months. He left behind him an immense empire, which became the scene of continual wars. He had designated no heir, and, being asked by his friends to whom he left the empire, answered, "To the worthiest." After many disturbances, the generals acknowledged Antiochus, a man of a very weak mind, the son of Philip and the dancer Philinna, and Alexander, the posthumous son of A. and Roxana, as kings, and divided the provinces among themselves, under the name of *satrapies*. They appointed Perdiccas, to whom A. on his death-bed had given his ring, prime minister of the infant kings. The body of A. was interred, by Ptolemy, in Alexandria, in a golden coffin, and divine honors were paid to him, not only in Egypt, but also in other countries. His sarcophagus, since 1802, has been in the British museum. Arrian, Diodorus, Plutarch and Curtius are the sources from whence the history of A. is drawn. (See also *St. Croix, Exam. critique des Historiens d'Alex.*, 4to., Paris, 1804.) *Secunder* is the oriental name of A.

ALEXANDER BALAS, king of Syria, was, according to some, the natural son of Antiochus Epiphanes, but, according to others, a young man of mean extraction at Rhodes, suborned by Heraclides, at the instigation of Ptolemy, Attalus and Ariarthes, to personate the son of Antiochus, and under that title to lay claim to the crown of Syria, in opposition to Demetrius. In a war between the two competitors, A. was slain, B. C. 145.

ALEXANDER JANNÆUS, king of the Jews, succeeded to the throne B. C. 106. His fourth brother endeavored to deprive him of the crown, and was put to death. A. began his reign by leading an army against Ptolemais, but was obliged to return to defend his own dominions against Ptolemy Lathyrus, and was defeated on the banks of the Jordan. He subsequently conquered Gaza, made war on the Ara-

bians, and was engaged in quarrels with his own subjects. After reducing them to order, he extended his conquests through Syria, Idumæa, Arabia and Phœnicia. On returning to Jerusalem, he devoted himself to drinking and debauchery, and died B. C. 79.

ALEXANDER SEVERUS, a Roman emperor, was born at Acre, in Phœnicia, in the year 205. He was the son of Genesius Marcianus and of Mammæa, niece to the emperor Severus. He was admirably educated by his mother, and was adopted and made Cæsar by his cousin Heliogabalus, then but a few years older than himself; at the prudent instigation of their common grandmother, Mæsa. That contemptible emperor, however, soon grew jealous of his cousin, and would have destroyed him, but for the interference of the prætorian guards, who soon after put Heliogabalus himself to death, and raised Alexander to the imperial dignity in his 17th year. Alexander adopted the noble model of Trajan and the Antonines; and the mode in which he administered the affairs of the empire, and otherwise occupied himself in poetry, philosophy and literature, is eloquently described by Gibbon. On the whole, he governed ably both in peace and war; but, whatever he might owe to the good education given him by his mother, he allowed her a degree of influence in the government, which threw a cloud over the latter part of his reign, as is usually the case with the indirect exercise of female political influence. A. behaved with great magnanimity in one of the frequent insurrections of the prætorian guards; but, either from fear or necessity, he allowed many of their seditious mutinies to pass unpunished, although, in one of them, they murdered their prefect, the learned lawyer Ulpian, and, in another, compelled Dion Cassius, the historian, then consul, to retire into Bithynia. At length, undertaking an expedition into Gaul, to repress an incursion of the Germans, he was murdered, with his mother, in an insurrection of his Gallic troops, headed by the brutal and gigantic Thracian, Maximin, who took advantage of their discontent at the emperor's attempts to restore discipline. This event happened in the year 235, after a reign of 12 years. A. was favorable to Christianity, following the predilections of his mother, Mammæa; and he is said to have placed the statue of Jesus Christ in his private temple, in company with those of Orpheus and Apollonius Tyaneus. In return, the Christian

writers all speak very favorably of him. Herodian, on the contrary, accuses him of great timidity, weakness, and undue subjection to his mother; but exhibits a disposition to detract from his good character on all occasions, in a way that renders his evidence very suspicious. He was thrice married, but left no children. Ælius Lampridius tells the following singular story of A.:—Ovinus Camillus, a Roman senator, conspired against him. A., learning the fact, sent for Ovinus, thanked him for his willingness to relieve him from the burden of government, and then proclaimed him his colleague. A. now gave him so much to do, that he had hardly time to breathe, and, on the breaking out of a war with Artaxerxes, the fatigues to which A. exposed himself, and which Ovinus was compelled to share, so overwhelmed the latter, that, at last, he besought A. to permit him to return to a private station. He was accordingly allowed to resign the imperial dignity.

ALEXANDER; the name of several popes. —Alexander I reigned from 109 to 119, and is known only as having introduced the use of holy water.—A. II, Anselm of Milan, previously bishop of Lucca, was, in 1061, raised to the papal throne by the party of Hildebrand, afterwards Gregory VII, while the adherents of the German king, and of the nobility of Rome, chose Honorius II at Basle. This antipope expelled A. from Rome, but Hildebrand, then the soul of the papal government, supported him; a synod at Cologne acknowledged him in 1062, and the Romans themselves revolted, in 1063, from Honorius. Thus A. attained quiet possession of Rome, and of the papal power, which, however, Hildebrand administered in his name. The papal bulls, therefore, against lay investiture, against the marriage of priests, and the divorce of Henry IV, and the haughty summons of this king to appear before the papal chair, must be ascribed to the influence of Hildebrand, who used the weak A. II as his tool. A. died in 1073. (See *Gregory VII.*) —A. III reigned from 1159 to 1181, and struggled with various fortune, but undaunted courage, against the party of the emperor Frederic I, and the antipopes Victor III, Paschal III, and Calixtus III, who rose, one after the other, against him. He was obliged to flee to France in 1161, where he lived in Sens, until the dissatisfaction of the Lombards with the government of Frederic, the assistance of the German ecclesiastical princes, and the desire of the Romans, opened a way for his

return, in 1165. He now strengthened his power by a league with the cities of Lombardy, but was obliged to retire, in 1167, before the imperial army, and resided in Benevento, Anagni and Venice, until after the victory of the Lombards over the emperor at Legnano, followed by the peace of Venice (so humiliating to the pride of the emperor Frederic, who was compelled to kiss the feet and hold the stirrup of A., in 1177), the abdication of the third antipope, and the return of the victor to Rome. A. humbled, also, Henry II, king of England, who had exposed himself to the papal vengeance by the assassination of Becket. The terms, on which the German and English sovereigns were restored to favor, were such as to increase the power of the pope in both countries. He placed Alfonso II on the throne of Portugal, and laid Scotland under an interdict on account of the disobedience of the king. The rest of his labors to augment the papal power, and his persevering efforts, in the spirit of Gregory VII, till the period of his death, are related in the article *Popery*.—A. IV, count of Segni and bishop of Ostia, ascended the papal throne in 1254, at a very unfavorable time. Conquered by Manfred of Sicily, implicated in the quarrels of the Guelphs and Ghibellines, despised in Italy, this pope, with good intentions, and a peaceable disposition, was not able to prevent, either by his prayers or his excommunications (which were only laughed at), the disturbances prevailing over the whole country. At his death, in 1261, he left the papal power in a state of great weakness.—A. V., a Greek from Candia, under the name of Peter Philargi, a mendicant friar, rose to the dignity of cardinal, and was chosen pope in 1409, at the same time with the antipopes Gregory XII and Benedict XIII. He was considered by the greater part of Christendom legitimate pope, but carried his prodigality and luxury in Bologna, where he constantly resided, to an extent injurious to the interests of the church. At the council of Pisa, he promised to reform the abuses prevailing in the church, but took no steps towards it. While occupied in the condemnation of the doctrines of Wickliffe, and in preparations for the trial of the Bohemian reformer, Huss, he died in 1410, probably by poison.—A. VI. (*See the following article*).—A. VII, who was employed, when cardinal Chigi, as papal nuncio, in negotiations of peace at Munster and Osnabruck, and was revered on account of his pious zeal for the church and holy life,

laid aside the mask of sanctity after his elevation to the papal throne, April 8, 1655, and gave himself openly up to luxury and voluptuousness. He surrounded himself with show and splendor, and appeared in the character of an intriguing politician. For an account of his condemnation of the 5 points of Jansen's *Augustinus*, and the quarrels in which he was consequently involved in France, see *Jansen*. He quarrelled not only with the Sorbonne, and the parliament, but even with king Louis XIV; so that the latter declared war against him, took Avignon and Venaissin, and forced him, in 1663, to make a disgraceful peace at Pisa. His improvements in the city of Rome, his attempts at poetry, and encouragement of learned men, could not indemnify the Roman court for the loss of authority in France, and he died without glory, May 22, 1667.—A. VIII, an Ottoboni from Venice, became pope in 1689. By artful negotiations, he induced Louis XIV to deliver up Avignon and Venaissin, and to renounce the privileges belonging to the quarter of his ambassador in Rome. He supplied the Venetians with men, money and ships to carry on a war against the Turks. Less intent upon the weal of the church than on enriching his own family, he delayed the condemnation of the 4 articles of the Gallican church, in order to gain advantages for his relations. He was hostile towards the Jesuits, and condemned their doctrine of the philosophical sin; at the same time, however, 31 theses of the Jansenists. (*See Jansen*.) The library of the Vatican is indebted to him for the purchase of the excellent library of the queen Christina of Sweden. He died in 1691, 81 years old.

ALEXANDER VI, a notorious pope, was born at Valencia, in Spain, in 1430, and ascended the papal throne in 1492. His name was Rodrigo Lenzuoli; but he took the ancient and renowned name of his mother's family, Borgia. In his youth he was noted for dissipation, though not destitute of talent. He had 5 children, by a woman famous for her beauty, Rosa Vanozza. Cæsar Borgia and Lucretia are the most known; the latter was four times married, and was suspected of incestuous intercourse with her father and brothers. A. was made a cardinal by pope Calixtus III, his uncle. By bribing the cardinals Sforza, Riario and Cibo, he prepared his way to the papal throne, after the death of Innocent VIII. The long residence of the popes in Avignon, at a distance from their dominions in Italy, had

diminished both their authority and revenues. To make up for this loss, A. VI endeavored to impair the power of the Italian princes, and seize upon their possessions, for the benefit of his own family. To effect this end, he employed the most execrable means. His policy, foreign as well as domestic, was faithless and base, particularly in the case of France, whose king, Charles VIII, was his enemy. He understood how to extract immense sums of money from all Christian countries. He decided the dispute between the kings of Portugal and Castile concerning America, dividing their conquests, in 1494, by a line running from pole to pole, 370 miles west of the Azores. A. died, 74 years old, in 1503. Machiavelli abhorred this detestable miscreant, and says of him,

Malò valenza, e per aver riposo
Portato fu fra l'anime beate
Lo spirito d' Alessandro glorioso;
Del qual seguìro le sante pedate
Tre sue familiari e care ancelle,
Lussuria, simonia e crudeltade.

ALEXANDER NEWSKOI, a Russian hero and saint, the son of the grand-duke Jaroslav, was born in 1219. In order to defend the empire, which was attacked on all sides, but especially by the Mongols, Jaroslav quitted Novgorod, and left the charge of the government to his sons, Fedor and Alexander, the former of whom soon afterwards died. A. repulsed the assailants. Russia, nevertheless, came under the Mongolian dominion, in 1238. A., when prince of Novgorod, defended the western frontier against the Danes, Swedes, and knights of the Teutonic order. He gained, in 1240, a splendid victory, on the Neva, over the Swedes, and thence received his surname. He overcame, in 1242, the knights of the sword, on the ice of lake Peipus. After the death of his father, in 1245, A. became grand-duke of Wladimir. He died in 1263. The gratitude of his countrymen has commemorated the hero in popular songs, and raised him to the dignity of a saint. Peter the Great honored his memory by the erection of a splendid monastery in Petersburg, on the spot where A. gained his victory, and by establishing the order of Alexander Newskoi.

ALEXANDER. Several kings of Scotland were so named.—A. I, son of Malcolm III, succeeded his brother Edgar in 1107. He was called the *Fierce*, from his vigor and impetuosity. A conspiracy was formed against his life, and the traitors obtained admission into his bed-chamber at night. A., having killed six of them, made his

escape. He died in the 17th year of his reign.—A. II succeeded his father, William the Lion, 1214, in his 16th year, and died in his 51st year.—His son, A. III, succeeded him in 1249. He married Margaret, daughter of Henry III of England. In 1263, he defeated, at Largs, Haquin, king of Norway, who had landed an army in his kingdom. He was killed in hunting, by his horse rushing down a high precipice. He was a prince of an excellent character, introduced many good regulations of government, and greatly contributed to diminish the burdens of the feudal system, and to restrain the license and oppressions of the nobility. His death makes an æra in Scottish history.

ALEXANDER I, PAULOWITSCH (that is, the son of Paul), emperor and autocrat of all the Russias, and king of Poland, was born Dec. 23, 1777; ascended the throne March 24, 1801; was crowned 27th Sept. of the same year, in Moscow; married, 9th Oct., 1793, Elizabeth (previously called *Louisa Maria Augusta*), third daughter of Charles Louis, hereditary prince of Baden; and died 1st Dec., 1825. A. was one of the most important men of modern times. He was a great benefactor of his own country, and did some good and a great deal of evil to Europe. Nature had endowed him with great talents, which were judiciously cultivated by his mother and his instructors. He recognised the spirit of the age; frequently acted in accordance with liberal principles; had sense enough to know that a monarch, to play an important part, must have respect to the wishes of the people, whatever his ultimate object may be; loved justice, if it did not militate with his love of power, which was indeed of a higher order than that of a common tyrant; and sought to make himself, like Napoleon, master of Europe, though with different means. In many respects he resembled the great pope Gregory VII. He was, whether from policy or conviction of its necessity, in a religious point of view, the principal contriver and the chief support of the "Holy Alliance" (q. v.),—a league which history will denounce as the origin of infinite evil. His father did not take any part in his education, which was directed by the empress Catharine II and colonel Laharpe. (q. v.) His mother, Maria, the daughter of the duke Eugene of Wirtemberg, always possessed his love and confidence, and retained a great influence over him throughout his reign. She died in the year 1828. Laharpe educated him in the

principles of an enlightened age. His first governor, count Nich. Soltikoff, received orders from Catharine not to give the young prince any instruction in poetry and music, as requiring too much time for the attainment of proficiency. Professor Kraft instructed him in natural philosophy, and Pallas, a short time, in botany.—He took part, it is probable, in the conspiracy against his father, though it is not likely that he had the most distant thought against his life. He wished to save himself and many nobles of the empire from the mad persecution of the emperor, and nothing short of dethroning him could afford them safety. He is often said, therefore, to have acted in self-defence.—The history of his government may be divided into 3 periods: The first was peaceful, and entirely devoted to the execution of the schemes of Peter the Great and Catharine II, respecting the internal administration. The second, extending from 1805 to 1814, was a time of war with France, Sweden, the Porte and Persia, and developed the resources and the national feeling of the people. In the third period, he used the experience acquired in the two preceding, to carry into effect the declaration of Peter the Great, made 100 years before, in 1714, after a victory over the Swedish fleet, near the Åland islands:—"Nature has but one Russia, and it shall have no rival."—A. was distinguished for moderation, activity and attention to business, personally superintending the multiplied concerns of his vast empire, while his simple and amiable manners gained him the love and confidence of his subjects. He understood and was zealous in promoting the welfare of his people. Great attention was paid, during his reign, to education and intellectual culture, and many improvements were introduced into the internal administration of the empire; e. g. the establishment of the senate by the ukase of 1802, of the imperial council and the ministry of 8 divisions by the ukase of 1810, of the provincial administration in the governments, &c. The shackles which hung on the industry of the nation were removed, and its commerce increased.—A. has likewise advanced the military establishments of Russia to a high degree of perfection; he has developed in his people the sentiments of union, courage and patriotism; and, lastly, he has raised Russia to a high rank in the political system of Europe, and has made its importance felt even in Asia. It must be also acknowledged that, during his reign, taste

and intelligence began to be diffused among the higher classes, as well as eminent and even liberal statesmen to be formed, though it is in this, as in so many other things, difficult to distinguish what is owing to the prince, and what to the spirit of the age.—Among the most intimate associates of the emperor were general Jermoloff, afterwards Wolchonsky, Araktschejeff and Diebitsch. In the earlier part of his reign, some Greeks stood high in his favor, as did the French ambassador, count Caulaincourt, from 1807 to 1812.—Among the merits of A. are to be reckoned his exertions for the improvement of the Slavonian nations, and the cultivation of their language and literature. He founded or new-modelled 7 universities, at Dorpat, Kazan, Charkov, Moscow, Wilna, Warsaw and St. Petersburg; 204 academies, many seminaries for the education of instructors, and above 2000 common schools, partly after the system of Lancaster. He did much for the distribution of the Bible, by the aid which he rendered to the Bible societies (abolished in 1826). He granted important privileges, by a ukase of 1817, to Jews becoming Christians. He appropriated large sums for the printing of important works, as the *Voyage of Krusenstern*, the *History of Russia* by Karamsin, &c. He esteemed and rewarded literary merit, both in and out of Russia. He purchased rare and valuable collections. In 1818, he invited two orientalists, Demange and Charmoy, from Paris to Petersburg, to advance the study of the Arabic, Armenian, Persian and Turkish languages. He attended particularly to the education of young men of talent, whom he sent to travel through foreign countries. He endeavored, at the same time, by moderate measures, to relieve his subjects from the tyranny of their lords, the nobles, the boyars, starosts, &c. Servitude was abolished in 1816, in Esthonia, Livonia and Courland; and A. declared, that he would no longer transfer with the crown-lands the boors who cultivated them. He forbade the advertising of human beings for sale, and gave leave to a number of boors, a part of the bondmen of the late chancellor Romanzoff, to ransom themselves from their master. He endeavored, with much earnestness, to give to his people a good system of law, but the civil code of Russia still requires many improvements. The law-school, opened in 1807, ceased in 1810.—The custom of slitting the nose and branding, hitherto connected with whipping with the knout, was abolished

by A. in 1817. He likewise abolished, in 1801, the secret court, as it was called, before which political criminals, chiefly, were brought, and compelled, by hunger and thirst (not, however, by instruments of torture), to confess. He checked the abuse of power in the hands of governors, by preventive laws. The privilege of the nobles, that their estates could not be confiscated as a punishment for their crimes, was extended by A. to all his subjects. He also rendered efficient aid to manufactures and commerce in his empire, by the introduction of a better tariff; the improvement of the finances and currency of the country, after the establishment of a sinking fund; the erection of the bank of the imperial chamber, May 19, 1817; by providing continually for the construction of roads and canals; by making Odessa a free port, and granting it other privileges, in 1817. The condition of manufactures in Russia has greatly improved since 1804, when it became known from the report of the minister of the interior. The greatest progress has been made in manufactures in wool. The whole foreign policy of Russia; the voyages round the world, under the patronage of her government; the embassy to Persia, in 1817, to which was attached a Frenchman, Gardanne, who was acquainted with all the plans of Napoleon respecting India and Persia; the mission to Cochin China and Khiwa; the relations of Russia with the U. States, Brazil and Spain; the treaties of commerce and navigation with the Porte; the settlements on the western coast of North America, all prove the enlightened commercial policy of the Russian cabinet. The travels of A. in foreign countries, even his short stay in England, his intercourse with well-informed and sensible men, but, principally, his frequent journeys through the provinces of his empire, afforded the materials of his numerous projects for the benefit of his country. On this his attention was continually fixed. —The peace of Tilsit, in 1807, makes an epoch in the Russian military system. It not only opened the way to the conquest of Finland, in 1809, and of two of the mouths of the Danube, in 1812, but afforded A. time to remove the defects of the military system hitherto in use. The armies of Russia, during the war with Napoleon, were remarkable for their equipment and discipline. The active interest which A. took in the proper ordering of all the branches of the administration, is the reason why the nation

was attached to him with full confidence, which he experienced in time of danger. A. never showed a timid, unenterprising spirit. His decision frustrated the plans of Napoleon at Moscow. He gave his word to his people, that he would never negotiate with Napoleon, as long as an armed enemy was in the country. The activity which prevailed in the military department of the Russian administration is proved by the army which appeared, in 1813, in Germany, and that which was kept ready, in 1815, to march against France, comprising 300,000 men and 2000 pieces of cannon. The peaceful character of A.'s policy is remarkable. His personal friendship for the king of Prussia, Frederic William III, which was confirmed at the tomb of Frederic II, in 1805, led to important consequences. The queen, Louisa, was the living tie of this union. Admiration for the dazzling qualities of Napoleon drew him over to his side. He believed, too, that he might, in connexion with the emperor of France, decide the fate of Europe. This was the purpose of his famous meeting with Napoleon at Erfurt, in Sept., 1808. But when he saw that the ambitious conqueror wished to involve him in political contradictions, and prescribe laws to him injurious to the welfare of his empire, he resolutely maintained his independence. He succeeded, at an interview with the prince-royal of Sweden, at Abo, Aug., 1812, in forming an alliance with that country, after having induced the Porte, in May of the same year, to conclude the peace of Bucharest. After 1812, a kind of religious character appears in the policy of A., and he gave himself up, more and more, to religious influence. This character is remarkably manifest in the proclamation which he addressed from Warsaw, on the 10th (22d) Feb., 1813, to the nations of Europe, and the proclamation of Kalitz, 25th March, 1813, directed to the Germans, in which he promised a great improvement in their condition, by means of a proper constitution, the object of which should be, to promote their liberty, security and prosperity. The memorable manifesto of 27th Jan., 1816, contained an exposition of the political principles of the emperor. In the war of 1813—14, A. exposed himself to danger, in order to inflame the courage of his troops. He undoubtedly exercised a great influence upon the course of the war in France. His openness gained the confidence of the French, and it is said that he was secretly applied to from Paris.

He also principally directed the march of Schwartzberg, on the 29th March, 1814, to this capital, which put a glorious termination to the war. The magnanimity with which he treated Paris and all the French, the strict discipline of his troops, and the assurances which the allies, at his instance, tendered to the nation, facilitated the settlement of peace; and it is asserted that he acted from the belief that he was complying with the wishes of the French, and not from adherence to the principles of legitimacy, in recalling the Bourbons. He did not treat the conquered and dethroned emperor meanly, but respected in him the former sovereign and distributor of crowns, regardless of his birth. He called upon the empress Josephine, and dined with her at Malmaison; he interceded in favor of the prince Eugene Beauharnois; he visited Ney. The enthusiasm of the Parisians for him was unlimited. June 1, 1814, he went to England, where he was joyfully received. Several things, however, seem to have made an unfavorable impression upon him. He was not at ease among free Britons. He rose from his seat, however, at the banquet in Guildhall, in honor of the national song, *Rule, Britannia*. He left England 28th June, and reached Petersburg 25th July, where he declined the name of *the Blessed*, offered to him by the senate. A later ukase, of 27th Nov., 1817, forbade the praises which the clergy were accustomed to bestow on him from the pulpit. His presence in Vienna, during the congress, had a great influence upon the policy of Europe, occasioned the admission of some liberal views into the acts of the assembly, and added the kingdom of Poland to the gigantic power of Russia. The draft of the Polish constitution, prepared at the instance of A., was the first symptom of a disposition in the European rulers to perform the promises made to their subjects during the wars with Napoleon. A. again visited Paris, July, 1815, and from that period the great influence of Russia upon the French cabinet, in opposition to the influence of England, was apparent, especially when Richelieu, who had formerly been in the Russian service, was placed at the head of the ministry of Louis XVIII. In Spain, also, the same influence manifested itself. Even the court of Rio Janeiro showed a desire of allying itself with Russia; and the kingdom of the Netherlands, as well as Prussia, Wirtemberg and other states, entered into a closer union with the Rus-

sian court. A., together with the powers that had concluded the treaty of Chaumont, took an active part in the general concerns of Europe; for instance, the revolt of the Spanish colonies, and the dispute of Spain with Portugal, on account of Monte Video. He took measures against the piracy of the African states. Very soon, nothing occurred, of importance to the political affairs of the European continent, in which this ambitious monarch did not appear as leader, mediator or partaker. From the formation of the holy alliance (q. v.), in Paris, 26th Sept., 1815, to his death, A. was actively engaged in politics, and kept his emissaries all over Europe, who reported to him every important occurrence. Among these was Kotzebue, the German author, who was assassinated by the student Sand. The memoir, directed to all the Russian ambassadors, concerning the affairs of Spain, the answer of the Russian cabinet to the Spanish minister, the chevalier Zea Bermudez, and the declaration of the congress of Aix-la-Chapelle, 15th Nov., 1818, are interesting documents in the history of A. He took part, in 1820, in the congresses held at Troppau and Laybach, to settle the affairs of Italy, and ordered his army to advance towards this country, to suppress the revolt of the Carbonari. As its presence was found to be unnecessary, it returned to Russia, when the affairs of Greece (q. v.) occupied the attention of the Russian cabinet, in 1821. A. publicly expressed his disapprobation of the enterprise of prince Alexander Ypsilanti (q. v.), but interceded, however, with the Porte, for the cause of humanity and Christianity. (See *Stroganoff*.) It is possible, that, from a sincere love of peace, he suffered the best opportunity to escape of liberating Greece, and increasing his empire. His letter to the viceroy of Poland, prince Zajonczeck [Aix-la-Chapelle, 7 (19) Oct., 1818], is a proof that he was not a stranger to liberal sentiments. He spoke in the same spirit, March 5, 1819, to a deputation of the Livonian nobility, requesting his ratification of the new constitution, which had been made for the benefit of the Livonian peasantry, when he used the memorable words,—“You have acted in the spirit of our age, in which liberal ideas afford the true basis of the happiness of nations.” His remark to madame de Staël, several years before, was characteristic: “You will be offended with the sight of servitude in this land. It is not my fault; I have set the example of emancipation, but I cannot employ

force; I must respect the rights of others as much as if they were protected by a constitution, which, unhappily, does not exist." Madame de Staël answered—"Sire, votre caractère est une constitution" (Sire, your character is a constitution). He had, at the beginning of his reign, abolished the secret police of state and the censorship of books. (the latter of which, however, he introduced again at a later period), and declared, April 7, 1801, "I acknowledge no power to be lawful which does not emanate from the laws." In the same spirit he banished the Jesuits, 1st Jan., 1816, from Petersburg and Moscow, and at last, 25th March, 1820, from the empire, because they dared to interfere with the affairs of the government, and disturb the peace of families. He had prohibited proselytism, and promoted the instruction of the Jews. A. developed, in the same spirit, the internal resources and the external power of his immense empire. The addition of Georgia, Bialystock, Finland, Warsaw, Schirvan and Bessarabia has rendered its frontiers almost every where impenetrable, and increased the number of its inhabitants from 36 millions to more than 43, for the most part Europeans. The speedy rebuilding of Moscow, the progress of cultivation in Siberia and the Crimea, the number of inhabitants in the governments of Tobolsk, Tomsk and Irkutsk increased by 800,000, and similar proofs of the advancing prosperity of the empire, have immortalized the reign of A. Whether the gigantic plan of uniting the supporters of the political power of Russia, the classes of peasants and soldiers, will prove to be good, experience must decide. (See *Military Colonies of Russia*.) A., by the edict of 28th Dec., 1818, granted to all peasants in his empire the right of establishing manufactories,—a right confined, hitherto, to the nobility, and the merchants of the first and second classes. A better disposition of the national debt, and a sinking fund, permitted an alleviation of taxes. A ukase of 1st Jan., 1819, therefore, abolished the tax upon income from landed property, established 11th Feb., 1812, but the expenses attending the support of a numerous army prevented any further remission.—The population of southern Russia has been greatly increased by the admission of German emigrants; and the same plan was extended to Poland, where, by a decree of A., Warsaw, 10th Aug., 1816, the new settlers received deserted houses and lands, belonging to the national domains, or assistance of some

other kind. Schools and universities have been established; the system of Bell and Lancaster introduced; the ecclesiastical affairs of the Protestants and the Catholics arranged; the conversion of the Jews, or *Christian Israelites*, as they are called, encouraged; the activity of all public institutions for instruction increased, and the 17 scientific institutions in Petersburg and Moscow much improved. The expulsion of the Jesuits, indeed, disturbed a little the relations of the emperor with the see of Rome, but satisfactory explanations were made by A. to the pope at Laybach. Lastly, the emperor nominated a bishop, and established a general consistory for the Lutheran church throughout the empire, in 1820, which was to maintain, in their purity, the doctrines of the Protestant church. A. showed great respect for all Christian sects, and protected them equally. His endeavors to elevate the condition of the boors, and the general tendency of his policy to introduce the principles and manners of western Europe, offended the old Muscovite nobility, and, towards the conclusion of his reign, in spite of the vigilance of the police, a fearful and widely-spread conspiracy was formed against him, the discovery and punishment of which was reserved for his successor. Perhaps A. was aware of the existence of treasonable projects when he followed his sick wife to the Crimea. His intention may have been to choose a place of retirement from the cares of government; but he fell sick at Taganrock (q. v.) of a bilious fever, and died, 1st Dec., 1825, in the arms of his wife. The news of his death had scarcely reached Petersburg, 8th Dec., O. S., when his eldest brother, Constantine, then in Warsaw, was proclaimed emperor; and all the civil officers and the guards took the oath of allegiance 9th Dec. O. S. But the grand duke declined accepting the crown, having resigned his right of succession, during the life-time of A., in a letter addressed to the emperor, Petersburg, 14th Jan., 1822, to which an answer was sent, Feb. 2, 1822, by A., expressing his approbation, and that of the empress mother. Before the arrival at Petersburg of the letter of Constantine, dated Nov., 26th, O. S. in which he announced to his mother and brother, the grand duke Nicholas, that he recognised the latter as emperor, the senate had opened the testament of A., and found in it the document containing the resignation of Constantine, together with a manifesto of the emperor (dated Zarskojeselo, 16th Aug., 1823), declaring his

second brother, Nicholas, his successor. This prince, therefore, ascended the throne, made known these documents in his proclamation of the 12th Dec., O. S. 1825, and declared, at the same time, that the day of the death of A. was the beginning of his reign (1st Dec., N. S., 19th Nov., O. S.) Then the oath of allegiance to the emperor Nicholas I was taken, 13th Dec., O. S., 25th, N. S., in Petersburg. The death of A. was a fortunate event for Europe; for the influence of Russia was growing continually stronger in all the cabinets of the European continent, and even England could not keep entirely exempt from it. No other empire has united, on so great a scale, the power of masses, yet rude and vigorous, with experience and the advantages of culture, —a union the more dangerous, as it was under the control of one absolute master. With A., moreover, perished the principal support of the holy alliance, —a sufficient reason for Europe to rejoice at his decease. Russia, however, laments in him a great benefactor. He had the good fortune to ascend the throne at a time when the empire was prepared for the greatest improvements, and his ambition was of a kind to be gratified by promoting the welfare of his people.

ALEXANDER, William, a major-general in the service of the U. States during the revolutionary war, was born in the city of New York, but passed a portion of his life in New Jersey. He was generally styled, through courtesy, *lord Stirling*, in consequence of being considered by many as the rightful heir to the title and estates of an earldom in Scotland, from which country his father came, though the government refused to acknowledge the son's claim, when he repaired to Great Britain in pursuit of this inheritance. He was early remarkable for his fondness for mathematics and astronomy, in which sciences he made considerable progress.—Throughout the revolution, he acted an important part, and distinguished himself particularly in the battles of Long Island, Germantown and Monmouth: In the first, he was taken prisoner, after having, by a bold attack upon a corps commanded by Cornwallis, effected the escape of a large part of his detachment. In the second, his division, with the brigades of generals Nash and Maxwell, formed the *corps de reserve*; and, in the last, he commanded the left wing of the American army. He was always warmly attached to general Washington, and the cause which he had espoused.

He died at Albany, Jan. 15, 1783, aged 57 years, leaving behind him the reputation of a brave, discerning and intrepid officer, and an honest and learned man.

ALEXANDRIA (in Turkish, *Scanderia*); the capital of Lower Egypt, and the ancient residence of the Ptolemies, built 332 B. C., by Alexander the Great, who destined it to be the capital of his empire, and the centre of the commerce of the world. Its natural situation is strong, and it has five harbors. The Ptolemies, especially P. Soter, or Lagus, and P. Philadelphus, improved it much, and made it the seat of learning. (See *Alexandrian School*).—The first inhabitants of Alexandria were a mixture of Egyptians and Greeks, to whom must be added numerous colonies of Jews, transplanted thither in 336, 320 and 312 B. C., to increase the population of the city and country, who, becoming familiar with the Greek language and learning, were called *Hellenists*. (q. v.) It was they who made the well-known Greek translation of the Old Testament, under the name of the *Septuaginta*. (q. v.)—The most beautiful part of the city, near the great harbor, where stood the royal palaces, magnificently built, was called *Bruction*. There was the large and splendid edifice, belonging to the academy and museum, where the greater portion of the royal library (400,000 volumes) was placed; the rest, amounting to 300,000, was in the Serapion, the temple of Jupiter Serapis. The larger portion was burned during the siege of Alexandria by Julius Caesar, but was afterwards replaced by the library of Pergamus, which Antony presented to Cleopatra. The museum, where many scholars lived and were supported, ate together, studied and instructed others, remained unhurt till the reign of Aurelian, when it was destroyed in a period of civil commotion. The library in the Serapion was preserved to the time of Theodosius the Great. He caused all the heathen temples, throughout the Roman empire, to be destroyed; and even the splendid temple of Jupiter Serapis was not spared. A crowd of fanatic Christians, headed by their archbishop, Theodosius, stormed and destroyed it. At that time, the library, it is said, was partly burned, partly dispersed; and the historian Orosius, towards the close of the 4th century, saw only the empty shelves. Christian barbarians, therefore, and not Arabs under Omar, as is usually asserted, were the cause of this irreparable loss to science. The Alexandrian library, called, by Livy, *Elegantia regum*

curaque egregium opus, embraced the whole Greek and Latin literature, of which we possess but single fragments.—In the division of the Roman dominions, Alexandria, with the rest of Egypt, was comprehended in the Eastern Empire. The Arabs possessed themselves of it in 640; the caliph Motawakel, in 845, restored the library and academy; but the Turks took the city in 868, and it declined more and more, retaining, however, a flourishing commerce, until the Portuguese, at the end of the 15th century, discovered a way to the East Indies by sea.—The modern A., situated N. lat. 31° 11', E. lon. 30° 16', does not occupy the place of the old town, of which nothing remains except a portico in the vicinity of the gate leading to Rosetta, the south-western amphitheatre, the obelisk, or needle of Cleopatra (presented to the king of England by the pacha—but a mass of 400,000 pounds is too heavy to be transported), and Pompey's pillar, 88 feet 6 inches high, which, according to an English traveller (*Memoirs relating to Europe and Asiatic Turkey*, by Robert Walpole, 1817), was erected by a governor of Egypt, named *Pompey*, in honor of the emperor Diocletian. The equestrian statue on the top is no longer standing.—The town has now 2 citadels and harbors, of which the western, which is the best, is closed against Christian ships. Before both harbors are the peninsula Farillon and the island Pharos, with the ruins of the lighthouse of Ptolemy. (See *Pharos*).—The population, formerly amounting to 300,000, is now 12,600; the houses, 3132. A. is the seat of a patriarch. The canal of Ramanieh, from Cairo to Alexandria, 40 miles, was restored by the viceroy, Mohammed Ali Pacha, and first navigated 26th Jan., 1820. In consequence of this, the commerce of Alexandria has been much improved. In the year 1824, 1290 ships, among them 606 Austrian, arrived, and 1199 departed.—A peculiarity of modern A. is the great number of dogs, which here, as well as in Cairo and Constantinople, run about in a very wild state.—According to the latest accounts, the trading pacha of Egypt has appointed an Italian renegade, to collect all the remains of ancient art, which are capable of transportation, in his dominions, in order to sell them, in a bazar to be built for this purpose in A., to the Europeans.

ALEXANDRIA, with the surname *della Paglia*; a considerable town and fortress in Piedmont, situated in a marshy country, near the junction of the Bormida and the

Tanaro. It was built in 1178, by the Cremonese and Milanese, and at first called *Cæsarea*; afterwards, in honor of the pope Alexander III, who established there a bishopric, *Alessandria*. Its magnitude and opulence increased from century to century; it now contains 30,000 inhabitants, and may be considered flourishing, since it is the capital of the province of the same name, and has two fairs annually, which are much frequented. Intended, originally, for a fortress to guard the passage over the Tanaro and Bormida, and constantly kept in good order, as the point where several roads meet, Alexandria has frequently been the object of long contention. It was taken and plundered, in 1522, by duke Sforza; besieged, without success, by the French, under prince Conti, in 1657; and taken, after an obstinate defence, by prince Eugene, in 1707. On the 16th of June, 1800, after the battle of Marengo, the Austrian general, Melas, agreed upon an armistice with Buonaparte, at Alexandria, by which he ceded to the latter Upper Italy, as far as the Mincio, and 12 fortresses. The fortifications of A. consist now of a surrounding wall and bastions, a strong citadel, formed by 6 bastions and many outworks, on the left bank of the Tanaro, and a redoubt protecting the bridge on the right bank of the Bormida. A bridge of stone connects the town and citadel.—For an account of the revolt of the garrison of A., see *Piedmont, Revolution of*.

ALEXANDRIA; a city and port of entry, in the district of Columbia, and county of Alexandria, on the S. bank of the Potomac, 6 miles S. Washington, 115 N. Richmond; lon. 77° 4' W.; lat. 38° 49' N.: pop., in 1800, 4,196; in 1810, 7,227; in 1820, 8,218; blacks, 2,603: houses, in 1817, 1,385. Among the public buildings are a court-house, a jail, an alms-house, a theatre, a market-house, and 8 houses of public worship.—The situation of Alexandria is considerably elevated, with easy and gradual descents to the river, which is neatly wharfed for about half the length of the city, with water sufficient for the largest merchant-ships. The streets intersect each other at right angles, and a great part of them are neatly paved. The city is favorably situated for commerce, nearly at the head of the tide-water of the Potomac, having an extensive and fertile back country, and carries on a considerable trade, chiefly in flour. A. expects to derive much benefit from the intended canal from Ohio to Washington.

ALEXANDRIAN COPY, or CODEX ALEX-

ANDRINUS; a manuscript, now in the British museum, of great importance in biblical criticism. It is on parchment, with uncial letters, without breathings and accents, written, probably, in the latter half of the 6th century, and contains, in 4 vols. folio, the whole Greek Bible (the Old Testament according to the Septuagint), together with the letters of the bishop Clement, of Rome. A large part of the Gospel of St. Matthew and of the Second Epistle to the Corinthians, as well as a portion of the Gospel of St. John, are wanting. The text of the Gospels is different from that of the other books. The patriarch of Constantinople, Cyrillus Lucaris, who, in 1628, sent this manuscript as a present to Charles I, said he had received it from Egypt; and it is evident, from other circumstances, that it was written there. But it cannot be decided, with certainty, whether it came from Alexandria (whence its name). John Ernest Grabe follows it in his edition of the Septuagint (Oxford, 1707—20, fol., 4 vols.) Dr. Woide published the New Testament from this copy, (London, fol., 1786), with types cast for the purpose, line for line, with intervals between the words, as in the manuscript itself. The copy is so perfect a resemblance of the original, that it may supply its place. Henry Hervey Baber undertook a similar edition of the Old Testament, London, 1816, fol. This famous manuscript belonged, in 1098, to the library of the patriarch of Alexandria. The text of this manuscript is of the greatest importance in the criticism of the Epistles of the New Testament; in the Gospels it is evidently worse. The 3 first divisions contain the Alexandrian translation of the Old Testament; the 4th, the New Testament in the original language.

ALEXANDRIAN SCHOOL. When the flourishing period of Greek poetry was past, study was called in to supply what nature no longer furnished. Alexandria in Egypt was made the seat of learning, by the Ptolemies, admirers of the arts, from whence this age of literature took the name of the *Alexandrian*. Ptolemy Philadelphus founded the famous library of Alexandria, the largest and most valuable one of antiquity, which attracted many scholars from all countries; and also the museum, which may justly be considered the first academy of sciences and arts. (See *Alexandria*.) The grammarians and poets are the most important among the scholars of Alexandria. These grammarians were philologists and literati, who explained things as well as words, and may

be considered a kind of encyclopedists. Such were Zenodotus the Ephesian, who established the first grammar school in Alexandria, Eratosthenes of Cyrene, Aristophanes of Byzantium, Aristarchus of Samothrace, Crates of Mallus, Dionysius the Thracian, Apollonius the sophist, and Zoilus. Their merit is to have collected, examined, reviewed and preserved the existing monuments of intellectual culture.—To the poets belong Apollonius the Rhodian, Lycophron, Aratus, Nicander, Euphorion, Callimachus, Theocritus, Philetas, Phanocles, Timon the Phlasiian, Scymnus, Dionysius, and 7 tragic poets, who were called the *A. Pleiads*. The A. age of literature differed entirely, in spirit and character, from the preceding. Great attention was paid to the study of languages; correctness, purity and elegance were cultivated; and several writers of this period excel in these respects. But that which no study can give, the spirit which filled the earlier poetry of the Greeks, is not to be found in most of their works. Greater art in composition took its place; criticism was now to perform what genius had accomplished before. But this was impossible. Genius was the gift of only a few, and they soared far above their contemporaries. The rest did what may be done by criticism and study; but their works are tame, without soul and life, and those of their disciples, of course, still more so. Perceiving the want of originality, but appreciating its value, and striving after it, they arrived the sooner at the point where poetry is lost. Their criticism degenerated into a disposition to find fault, and their art into subtlety. They seized on what was strange and new, and endeavored to adorn it by learning. The larger part of the Alexandrians, commonly grammarians and poets at the same time, are stiff and laborious versifiers, without genius.—Besides the A. school of poetry, one of philosophy is also spoken of, but the expression is not to be understood too strictly. Their distinguishing character arises from this circumstance, that, in Alexandria, the eastern and western philosophy met, and an effort took place to unite the two systems, for which reason the A. philosophers have often been called *Eclectics*. This name, however, is not applicable to all. The new Platonists form a distinguished series of philosophers, who, renouncing the scepticism of the new academy, endeavored to reconcile the philosophy of Plato with that of the East. The Jew Philo of Alexandria (q. v.) belongs to the

earlier new Platonists. Plato and Aristotle were diligently interpreted and compared in the 1st and 2d centuries after Christ. Ammonius the Peripatetic belongs here, the teacher of Plutarch of Chæro-neæ. But the real new Platonic school of Alexandria was established at the close of the 2d century after Christ, by Ammonius of Alexandria (about 193 A. D.), whose disciples were Plotinus and Origen. (See *Platonists, New*.) Being, for the most part, Orientals, formed by the study of Greek learning, their writings are strikingly characterized, e. g. those of Ammonius Saccas, Plotinus, Iamblicus, Porphyrius, by a strange mixture of Asiatic and European elements, which had become amalgamated in Alexandria, owing to the mingling of the eastern and western races in its population, as well as to its situation and commercial intercourse. Their philosophy had a great influence on the manner in which Christianity was received and taught in Egypt. The principal Gnostic systems had their origin in Alexandria. (See *Gnosis*.) The principal teachers of the Christian catechetical schools (q. v.), which had risen and flourished together with the eclectic philosophy, had imbibed the spirit of this philosophy. The most violent religious controversies disturbed the A. church, until the orthodox tenets were established in it by Athanasius, in the controversy with the Arians.—Among the scholars of Alexandria are to be found great mathematicians, as Euclid, the father of scientific geometry; Apollonius of Perga in Pamphylia, whose work on conic sections still exists; Nicomachus, the first scientific arithmetician;—astronomers, who employed the Egyptian hieroglyphics for marking the northern hemisphere, and fixed the images and names (still in use) of the constellations, who left astronomical writings (e. g. the *Phænomena* of Aratus, a didactic poem, the *Sphærica* of Menelaus, the astronomical works of Eratosthenes, and especially the *Magna Syntaxis* of the geographer Ptolemy), and made improvements in the theory of the calendar, which were afterwards adopted into the Julian calendar;—natural philosophers, anatomists, as Herophilus and Erasistratus;—physicians and surgeons, as Demosthenes Philalethes, who wrote the first work on the diseases of the eye; Zopyrus and Cratevas, who improved the art of pharmacy and invented antidotes;—instructors in the art of medicine, to whom Asclepiades, Soranus and Galen owed their education;—medical theorists and

empirics, of the sect founded by Philinus. All these belonged to the numerous association of scholars continuing under the Roman dominion, and favored by the Roman emperors, which rendered Alexandria one of the most renowned and influential seats of science in antiquity.—The best work on the learning of Alexandria is the prize essay of Jacob Matter; *Essai Historique sur l'École d'Alexandrie*, Paris, 1819, 2 vols.

ALEXANDRINE, or ALEXANDRIAN; the name of a verse, which consists of six feet, or of six and a half, equal to twelve or thirteen syllables, the pause being always on the sixth syllable; e. g. the second of the following lines:

A needless Alexandrine ends the song,
Which, like a wounded snake, drags its slow
length along.

It corresponds, in our language, to the hexameters in the Greek and Latin; though, according to some writers, it rather answers to the *senarii* of the ancient tragic poets. Chapman's translation of Homer and Drayton's polyolbion are written in this measure. The concluding line of the Spenserian stanza is also an A. This verse becomes fatiguing from monotony, unless the writer has a very delicate ear. The French, in their epics and drama, are confined to this verse, which, for this reason, is called by them the *heroic*. The A. derives its name from an old French poem, belonging to the middle of the 12th or the beginning of the 13th century, the subject of which is Alexander the Great, and in which this verse was first made use of. (See *French Poetry*.)

ALEXIANS. (See *Fraternities*.)

ALEXIS-BATH; a watering-place in Anhalt-Berensburg, of all the German mineral springs the most strongly impregnated with iron. It is charmingly situated at the foot of the Harz.

ALEXIS COMNENUS. (See *Comnenus*.)

ALEXIS PETROVITSCH, the eldest son of the czar Peter the Great and Eudoxia Lapuchin, was born in Moscow, 1690, and opposed the innovations introduced by his father, who, on this account, determined to disinherit him. A. renounced the crown, and declared that he would become a monk; but, when Peter set out on his second journey, he made his escape, in 1717, to Vienna, and thence to Naples, under the pretext of going to his father, who had sent for him. At the command of Peter, he returned; but the enraged czar, regarding his flight as an act of treason, disinherited him, by a ukase of 2d

Feb., 1718; and, when he discovered that A. was paving the way to succeed to the crown, he not only caused all the participants in his project to be punished capitally or otherwise, but had A. also condemned to death, and the sentence read to him, as pronounced unanimously by 144 judges. Although he was soon afterwards pardoned, yet the fright and anxiety which he had experienced, affected him so much, that he died in the course of 4 days, June 26, O. S. 1718. He left a daughter, and a son, afterwards the emperor Peter II. The account of Büsching, that general Weide decapitated A. in prison, is without any authority.

ALFIERI, Vittorio, count, was born at Asti, in Piedmont, in 1749, of a rich and distinguished family. His early education was very defective, like that of most men of his rank and country at that time. His uncle and guardian sent him to Turin, whose academy he left as ignorant and unformed as when he entered it. He then joined a provincial regiment, which was only called together for a few days during the year. He afterwards travelled over Italy, France, England and Holland; returned and commenced the study of history, but, soon disgusted with this pursuit, commenced his travels anew, and wandered for nearly 3 years, continually restless and unsatisfied. He left the military service, and led, for a long time, an inactive life, until ennui drove him to write dramatic poetry. His first attempt was crowned with undeserved success; and he determined, at the age of 27 years, to devote all his efforts to the single object of becoming a tragic poet. Sensible of his deficiencies, he went to work zealously to acquire the rudiments of knowledge. He first studied Latin and Tuscan, for which purpose he went to Tuscany. In this journey he became acquainted with the countess of Albany (q. v.), the consort of the English pretender, and a daughter of the noble family of Stolberg, to whom he soon became deeply attached. From this time, he strove with restless zeal to acquire distinction as a poet, in order to be worthy of her, whose esteem and love had such value in his eyes. In order to continue his labors wholly free and independent, he broke the last tie which bound him to his country. He bestowed his fortune on his sister, reserving only a moderate income for himself, and henceforth lived alternately at Florence and Rome. Here he composed 14 tragedies, to which he afterwards added some others, although con-

trary to his own inclination. The unfortunate situation of his beloved friend often disturbed him, but the death of her husband at length put an end to her troubles, and enabled her to marry A. Henceforth A. lived with her alternately in Alsace and in Paris, unceasingly busied with composition, and the arrangement and publication of his works (by Didot and Beaumarchais). When the disturbances in France began, he quitted the country, and went to England. Embarrassed by the constant fall of *assignats*, he went back to Paris, angry at seeing the cause of freedom dishonored by unworthy hands, and unable, from the state of his feelings, to continue his intellectual labors. This torture of mind he endured till the end of Aug. 1792, when he fled from Paris, and escaped the horrors of the ensuing September. He lost his books, and the greatest part of the complete edition of his tragedies, published by Didot, in 5 vols. Afterwards, he lived with his inseparable companion at Florence, resumed his usual labors, wrote his satires and 6 comedies, and, in his last years, studied the Greek language; with the Greek poetry he did not become acquainted till his course was nearly finished. He died in the midst of these labors, Oct. 8, 1803. He was buried in the church of Santa Croce, at Florence, between Machiavelli and Michael Angelo, where a beautiful monument by Canova covers his remains.—A. has distinguished himself as a dramatic poet in three different departments. He has written 6 comedies, 21 tragedies, and a *tramelogedia*, so called. All these works are to be looked upon as the efforts of a great spirit employed out of its proper sphere of action. Disgusted with idleness, and desirous to distinguish himself, A. became a poet. It was wholly impossible, for one who seldom contented himself with performing half of any design, to propose to himself a moderate degree of excellence in that which he had made the business of his life. He expressed his hope that his high exertions would associate his name with those of all the great poets that Italy had possessed. His noble efforts disarm the severity of criticism. He was worthy to attain what he could not attain. Above the degeneracy of his contemporaries, cherishing, too, a deep abhorrence of despotism, and possessed of a proud, free and passionate heart, A. was animated with a political rather than a poetical spirit. In the midst of a debased people, he wished to inspire the

spiritless with strength, courage and freedom of thought; but he disdained the arts of persuasion. He purposely threw aside all ornament, and wished to attain his end by loftiness of thought, strong brevity, and manly earnestness; but he forgot, that, in doing this, he must throw off the peculiar characteristics of a poet. His tragedies are abrupt and stiff; the plots simple, even to barrenness; the verse hard and unpleasing; and the language devoid of that attractive splendor, by which the poet stirs the inmost soul of man. Nevertheless, he is the first tragic writer of Italy, and has served as a model for those who have followed him.—If, in his youth, the genius of A. was too stiff for tragedy, he must, of necessity, fail when he attempted comedy in his old age, long after the sweet deceptions of life had vanished. His comedies, like his former works, had a serious, and, generally, a political aim; they are barren of invention; their plots are without interest; the characters, as in his tragedies, only general sketches, without individuality. They are, therefore, far inferior to his tragedies, and, indeed, are not worthy of his lofty spirit. We consider A.'s *Abel* the most successful of all his dramatic works. This he called a *tramelogedia*,—a name as novel as the work itself. He invented this species of drama intermediate between the tragedy and opera, and intended to have written 6 pieces in this form. His genius, which was the most successful when least restrained, here found its proper sphere, and if the species can stand before the critic, then the invention and execution of *Abel* make it, without doubt, a fine poetic work. Besides his dramas, A. has written an epic poem in 4 cantos, several lyrical pieces, 16 satires, and poetical translations from Terence, Virgil, and some portions of *Æschylus*, *Sophocles*, *Euripides* and *Aristophanes*. After his death appeared the *Misogallo*, a monument of his hatred towards the French; and his autobiography, a striking exhibition of his character. His complete works appeared at Padua and Brescia in 1809 and 1810, 37 vols.

ALFRED THE GREAT, king of England (born 849, died 900), ascended the throne of England 872, at a time when the Danes, or Normans, who were formidable to the Saxons as early as the year 787, had extended their conquests and devastations very widely over the country. A.'s efforts against them were at first unsuccessful, and he concluded some treaties which were not kept on their side. He

was obliged to fly in disguise, and remained, for more than a year, in the service of a shepherd. In this situation, he formed the design of freeing his country. He ordered his subjects to hold themselves in readiness against the enemy, gave them intelligence of his retreat, and informed himself of the condition of the Danes. He went, disguised as a harper, into the camp of king Guthrum, and, having ascertained that the Danes felt themselves secure, hastened back to his troops, led them against the enemy, and gained such a decided victory, that the Danes begged for peace. Those who were already in the country he allowed to remain there, on the condition that they and their king should embrace Christianity. A. now built forts, and exercised a part of his people in arms, while the rest cultivated the ground. He soon after divided the kingdom into counties, or shires, whereby he secured the public tranquillity. He made London the capital city of his dominions, and held there, twice a year, a general assembly of the estates. From time to time, new swarms of Danes sought entrance into the land, but the fleets of A. drove them from the coasts. He collected the laws of his predecessors, and endeavored to improve the condition of his subjects by an impartial administration of justice. He translated the Psalms, the fables of *Æsop*, and other writings, into Anglo-Saxon, and founded a school at Oxford. His familiar acquaintance with the most learned men of his time improved his own mind, and enabled him to do much for the good of his people. He laid the foundation of the English navy by causing ships, or rather galleys, of 60 oars to be built, which were as strong as any ships at that time in use. He also made discoveries in the north, and in the Baltic sea, the results of which he has made known in his translation of *Orosius*. His history, considering the times in which he lived, presents one of the most perfect examples on record of the able and patriotic monarch united with the virtuous man.

ALGÆ, in botany; one of the seven families of plants, into which Linnæus distributed the whole vegetable kingdom. They are defined to be plants, of which the roots, leaf and stem are all one. Under this description are comprehended all the sea-weeds, and some other aquatic plants. A. are also one of the Linnæan orders of the class *cryptogamia*.

ALGARDI, Alexander, a sculptor, de-

rived his origin from a family of high standing in Bologna. He was educated in the academy of Lodovico Caracci, and went, when 20 years old, to Mantua. The attempt to imitate, in sculpture, the famous pictures of Giulio Romano, in the palace del T, was sufficient to give his genius a wrong direction, since the excellences of these pictures are directly opposed to those of sculpture. In 1625, he went to Venice, and thence to Rome. The duke of Mantua had recommended him to cardinal Ludovisi, nephew of pope Gregory XV, who was intent on renewing the magnificence of the gardens of Salust. Here A. was employed in restoring mutilated antiques (e. g. a Mercury), and in preparing original works. Here he became acquainted with his countryman Domenichino. The statue of St. Magdalen, for the church of St. Silvestre, on the Quirinal, was his first great work. Cardinals and princes now availed themselves of his talents, and the French court wished him to come to Paris; but the prince Pamfili succeeded in retaining him in Rome, where he died, June 10, 1654, 52 years old, and was buried in the church St. Giovanni de Bolognesi. His *Flight of Atila*, a basso-relievo in marble with figures of the size of life, over the altar of St. Leo, in St. Peter's church, is his most renowned work. But, with all the excellences of this work, an inclination to give to sculpture the effect of painting is observable. This was owing to the influence of the school of Caracci on him. His *God of sleep*, of *nero antico*, in the villa Borghese, has often been taken for an antique. The basso-relievo of the *Flight of Atila* has often been engraved. It may be seen in Cicognara's *Storia della Scultura*.

ALGAROTTI, Francesco, count; born at Venice, 1712; an Italian writer, who united the study of the sciences with a cultivated taste for the fine arts. He studied at Rome, Venice and Bologna. He was a distinguished connoisseur in the fine arts, and excelled in mathematics, astronomy and natural philosophy. He had a predilection for this last science, as well as for anatomy, and devoted himself to them. He was acquainted with the Latin and Greek tongues, and paid great attention to the Tuscan style and language. He visited France, England, Russia, Germany, Switzerland, and all the important towns of Italy. The last ten years of his life he spent in his own country. When 21 years old, he wrote, at Paris, the greatest part of his *Newtoni-*

anismo per le Dame, 1737, after the model of Fontenelle's *Plurality of Worlds*, and thereby laid the foundation of his fame. Until 1739, A. lived alternately in Paris, at Cirey, with the marchioness du Chatelet, and in London. At that time he made a journey to Petersburg with lord Baltimore. On his return, he visited Frederic II, then crown-prince, and residing at Rheinsburg. The prince was so much pleased with him, that, after his ascension to the throne, he invited him to live with him, and raised him to the rank of count. He was not less esteemed by Augustus III, king of Poland, who conferred on him the office of privy counsellor. A. now lived alternately at Berlin and Dresden, but particularly in the former place, after receiving from Frederic, in 1747, the order of merit and the office of chamberlain. In 1754, he returned to his own country, where he resided first at Venice, afterwards at Bologna, and, after 1762, at Pisa. Here he died of a consumption, 1764, after suffering long from hypochondria. He himself formed the design of the monument, which Frederic II caused to be erected over his grave, in the court of the *campo santo*, at Pisa. He was called, in the inscription, with reference to his *Congresso di Citera*, and his *Newtonianismo*, a rival of Ovid, and a scholar of Newton. A.'s knowledge was extensive and thorough in many departments. In painting and architecture, he was one of the best critics in Europe. Many artists were formed under his direction. He drew and etched with much skill. In his works, which embrace a great variety of subjects, he shows much wit and acuteness. His poems, though not of a very high order, are pleasing, and his letters are considered among the finest in the Italian language. The latest collection of his works appeared at Venice, from 1791 to 1794, 17 vols.

ALGEBRA is a general method of resolving mathematical problems by means of equations, or it is a method of performing the calculations of all sorts of quantities by means of general signs or characters. Some authors define algebra as the art of resolving mathematical problems; but this is the idea of analysis, or the analytic art in general, rather than of algebra, which is only one species of it. In the application of algebra to the resolution of problems, we must first translate the problem out of common into algebraic language, by expressing all the conditions and quantities, both known and unknown, by their proper characters,

arranged in an equation, or several equations, if necessary, and treating the unknown quantity as if it were a known one; this forms the composition. Then the resolution or analytic part is the disentangling the unknown quantity from the several others with which it is connected, so as to retain it alone on one side of the equation, while all the known quantities are collected on the other side, thus obtaining the value of the unknown. This process is called *analysis*, or *resolution*; and hence algebra is a species of the analytic art, and is called the *modern analysis*, in contradistinction to the *ancient analysis*, which chiefly regarded geometry and its application. The mode of applying algebra to the resolution of problems may be seen in the following example:—If we wish, from the given difference of two numbers, and the difference of their squares, to find the numbers themselves, then the algebraist represents, in his language, the first of these differences by a , the second by b , the unknown numbers to be found by x and y , and marks the relation between the things given and those sought by the expressions $x - y = a$, and $x^2 - y^2 = b$. Then $x^2 - y^2$, he continues to say in his language, $= (x + y)(x - y)$; thus is $x + y = \frac{b}{a}$; and hence, by addition and subtraction, $x = \frac{b + aa}{2a}$, and $y = \frac{b - aa}{2a}$, which is then the general expression of this proposition. For particular cases, we have only to substitute the respective numbers instead of a and b , in order to have immediately the corresponding values of x and y .—The oldest known work on algebra, that we possess, is by Diophantus of Alexandria. (The best edition of the works of this geometrician, who is commonly supposed to have lived in the 4th century, is that of Toulouse, 1670, folio, with a commentary by Bachet, and notes by Fermat.) Europe, however, owes its first acquaintance with this science, not to the Alexandrian writer, but (as is the case with much of its knowledge) to the Arabians, as, indeed, the name itself shows. The Arabians brought their algebra to Spain, whence it found its way to Italy. The state of this science at that time may be learned from the work of Lucas de Burgo sancti sepulchri, *Summa Arithmetice et Geometrie, Proportionumque et Proportionalitatum*, Venice, 1494. Tartaglia of Brescia, Gardanus of Milan, and Ferrari of Bologna, are highly distinguishing names

among the Italian algebraists of this early period. In Germany, also, the study of algebra was prosecuted in the first half of the 16th century, of which the work of Mich. Stifel, professor of mathematics at Jena, *Arithmetica Integra cum præf. Melanchthonis*, Nuremb. 1544, 4to., gives the most decisive proof. In England, Recorde, in France, Peletarius, were distinguished algebraists about the same time; but this science was afterwards greatly enriched by Vieta, master of requests of queen Margaret of France, who died in 1603, and by the Englishman Harriot, who died in 1621, to whose labors the Flemish mathematician Albert Girard, who died about 1630, added his own with splendid success. Next appeared Descartes (q. v.), and Fermat, counsellor of the parliament of Toulouse, who died in 1664; and the great Newton (q. v.) published in 1707 his *Arithmetica Universalis*. At the same time with him, Leibnitz acquired credit by some algebraical propositions. After him, Maclaurin and Euler distinguished themselves in the most eminent manner by their additions to this part of mathematical knowledge. In later times, there have been constant efforts to raise algebra to a higher degree of perfection. We may name Lambert, d'Alembert, Lagrange, Ozanam, Saunderson, Clairaut, Cousin, Tempelhof, Kästner, Bézout, Gauss, &c.—Algebra enables us to survey remote and highly complicated relations. It is distinguished by this, that each of its expressions contains exactly the idea intended to be conveyed, while all other languages, as those of words, of the arts, of symbols, only approximate more or less to the proposed idea. On this account an exact lexicon of two languages can never be made, because every word in one is connected with ideas and associations different from those belonging to the corresponding word in the other. An algebraical formula, on the contrary, can be understood equally well by the Frenchman and the Hindoo, if they are both acquainted with the signs. In Rosenthal's Encyc. of Mathem. Sciences, i. 44, there is a list of the principal works on algebra. The most important are, Wiedeburg on the Study of Algebra, Jena, 1775, Euler's Algebra, translated by Bernoulli into French, with notes by Lagrange. A new and good edition of this translation appeared at Lyons in 1795, in 2 vols. Kaussler translated Lagrange's additions separately (Frankfort on the Maine, 1796). The profound Maclaurin's Treatise on Algebra (2d ed.

London, 1756) is distinguished among the old elementary books for solidity and clearness. We find examples and explanations in Saunderson's *Elements of Algebra*, Cambridge, 1740, 2 vols, 4to., translated into French by Jancourt, Amsterdam, 1756. Clairaut's *Algebra*, which was first published in 1746, has been several times reprinted, lately in 2 vols., by Lacroix, with notes by Lagrange and Laplace. Bézout's *Algebra*, in the 2d part of his excellent work, *Cours des Mathématiques à l'Usage de la Marine et de l'Artillerie*, 2d ed. by Peyard, Paris, 1800, is well written. The French have the most excellent elementary works in this as in every other branch of mathematics. The first vol. of Vega's *Lectures on Mathematics*, 3d ed., Vienna, 1802, contains a thorough introduction to common arithmetic and algebra. An excellent collection of problems in algebra and other branches of mathematics, is that of Meier Hirsch, a German, 2d ed., Berlin, 1811, which well deserves to be translated into other languages, because it contains the greatest variety of interesting examples arranged in the best order.

ALGIERS. (See *Barbary*.)

ALGOA or ZWARTKOP'S BAY, on the S. coast of Africa, where ships may lie in 5 fathoms' water, a mile from the general landing-place. The bay abounds in black whales and a variety of other fish. 500 miles E. from the Cape. Lon. of the landing-place, $26^{\circ} 35'$ E.; lat. $33^{\circ} 56'$ S. A small river of the same name flows into it. Mr. Barrow describes the adjacent country as very fertile, and abounding in useful animals. Fort Frederic is a recent establishment on the shore of the bay, but as yet very small.

ALGONQUINS; North American Indians on the Assiniboin or Rainy lake, and Prairie de Portage; formerly more numerous than at present; their number amounts only to 600. This tribe was once closely connected with the Iroquois Indians, and considered as their protectors; but their allies and protégés soon began to rival their former masters in the arts of hunting and of war, and quarrels arose, which proved almost fatal to the existence of the A., although they were assisted by the French. There is a church devoted to the Romish religion in their territory, but the exertions of the clergy have hitherto had little effect on their morals. They are in the general practice of polygamy, and much given to the use of intoxicating liquors. The country around them is cultivated in miserable and de-

tached patches, and this solely by their women, the men being engrossed with fishing and hunting. They are, like most of the other Indians, declining, and in a miserable state. (See *Indians*.)

ALGUAZIL; in Spain, an officer whose business it is to execute the decrees of a judge.

ALHAMA; the ancient *Artigis Julia*; a town of Spain, in Granada; lon. $2^{\circ} 46'$ W.; lat. $36^{\circ} 57'$ N.; on the Motril, 25 miles from Granada; population, 4,500. This place is celebrated for its warm medicinal baths and drinking waters, its romantic situation between craggy mountains, and the gallant defence of the Moors against the Spaniards, 1481, when the town was taken and sacked. The kings of Spain have erected a grand building for the use of invalids, with baths of free-stone, regulated to different degrees of heat. On the surrounding mountains the Rio Frio rises, and forms several cascades. Washington Irving, in his *Chronicle of Granada*, gives a spirited account of the taking of A., "the key of Granada." Byron's translation of the *Romance Muy Doloroso*, on the taking of A., is familiar to every reader.

ALHAMRĀ, MEDINAT ALHAMRĀ, or ALHAMERA, i. e. the Red City; a splendid portion or suburb of ancient Granada, when it was one of the principal seats of the empire of the Moors in Spain. It was the Alcazar, or royal palace of the kings of Granada, but grew, by numerous additions, at last, into another city. Ibn-ū-l Khatib, or Alkatib, describes it in his account of this kingdom and capital (which is preserved in Casiri's *Bibliotheca Arabico-Escorialensis*) as a most splendid place, where art and nature rival each other in magnificence. Seated on the northern brow of a lofty eminence, which commands a full view of the city of Granada on the one side, and of a charming country on the other, A. encloses in its ruined walls many monuments of ancient art, and traces of its former splendor. Our limited room does not allow us to give a description of the Arabian palace, commenced by Muhammad Abū Abdillāh Ben Nasr, the second of the Moorish kings of Granada, and completed under Abū-l Hajjaj, in the year of the Hegira 749, or A. D. 1348; nor of the Spanish palace commenced by Charles V., on a portion of the ruins of the Moorish edifices. It is a place equally interesting for the artist, the antiquarian, and the historian. Mr. Murphy's splendid work

on the Arabian Antiquities of Spain contains many views of these ruins.—See also *History of the Mahometan Empire in Spain*, 4to., London, 1816, with the supplement; a *Collection of historical Notices and Poems on the Alhamrá of Granada*; and Swinburne's *Travels through Spain*.

ALI; the son of Abu Taleb, who was uncle of Mahomet. When the latter assembled his kinsmen, and declared his prophetic mission, he asked which among them would be his vizier. "I am the man," exclaimed Ali, then but 14 years old. "Whoever rises against thee, I will dash out his teeth, tear out his eyes, break his legs, rip up his belly. O prophet, I will be thy vizier." Ali kept his word; distinguished both by eloquence and valor, he became one of the main pillars of the new faith, and obtained the name of the *Lion of God, always victorious*. He also received Fatima, the daughter of the prophet, in marriage. After the death of Othman, he became caliph, and finally lost his life by assassination, at Cufa, in the 63d year of his age. There was something of grandeur in the primitive simplicity and fanatical heroism of the first followers of Mahomet, and Ali formed one of the most conspicuous examples of the conjunction. The Mohammedan schism caused by the murder of Ali, is well known, and his sect is called *Shiites*, or heretics, by the *Sunnites*, or orthodox. The Persians, a part of the Usbec Tartars, and some of the princes of India, remain followers of Ali to this day. His posterity are numerous, and are allowed to wear green turbans, in honor of their descent from the prophet. There is extant, among various writings attributed to Ali, a collection of a hundred maxims or sentences, which have been translated by Golius and Ockley.

ALI; pacha of Yanina (Tepeleni), generally called *Ali Pacha*; a bold and crafty rebel against the Porte; an intelligent and active governor of his province; as a warrior, decided and able; as a man, a very fiend. His life is a curious exemplification of the state of the Turkish empire. He was born at Tepeleni, in 1744, of a noble family, which stood at the head of an independent tribe, the Tocides; and was the grandson of a bey named by the Porte. His early life was unfortunate, but his extraordinary strength of mind, which shrunk from no danger nor crime, united with great address, raised him to princely independence. The neighboring pacha had stripped his father of all his possessions. After his death, his mother,

a warlike and cruel Albanian, placed her son, then 16 years old, at the head of her dependants. He was defeated and taken prisoner; but the Curd pacha was so much struck with his beauty and vivacity, that he set him at liberty, after chastising him. A. then commenced robber, but was so unfortunate that he fled into the mountains, where, to keep himself from starving, he pawned his sabre. In this situation, his mother scornfully advised him to put on a woman's garment, and serve in the haram. In a second attempt at plunder, he was wholly defeated, and concealed himself in a ruined building, where, brooding over his fate, he sat, unconsciously pushing up the ground with a stick. He struck something hard, and found a chest containing gold. With this treasure he raised 2000 men, gained his first victory, and returned in triumph to Tepeleni. From this time he was continually fortunate, but, at the same time, false and cruel. On the day of his return, he murdered his own brother, whom he thought guilty of treachery, and confined his mother to the haram, under pretence of her having poisoned the deceased, where she soon after died from grief and rage. A. now continued his robberies, regained the favor of the Porte by assisting in the subjugation of the rebellious vizier of Scutari, and possessed himself of the estates which had been taken from his father, as well as of some Grecian cities. He then attacked the pacha Selim of Delvino, who was obnoxious to the Porte, and caused him to be beheaded, by which means he became his successor. At length the divan, in which he had obtained great influence by bribery, named him lieutenant of the dervendgi pacha, whose duty it was to preserve the highways secure; but, instead of attending to the duties of his office, A. sold commissions, in the name of the grand signior, to the richest bands of robbers, and thereby gave them legal authority to plunder. The dervendgi pacha and his lieutenant were now deposed, but A. purchased anew the favor of the prime minister. He rendered such important services to the Porte with his bold Albanians, in the war with Russia and Austria (begun 1787), although he carried on a secret correspondence with prince Potemkin, that the Porte named him pacha of Tricala in Thessaly. He immediately possessed himself of the city of Yanina, by showing a forged firman, which gave him the city and the citadel, and then compelled the inhabitants to

sign a petition to the sultan, requesting him to give them A. for a governor. He likewise compelled them to pay him a large sum of money, with which he bribed the divan, who granted the request. He afterwards entered into an alliance with Buonaparte, who sent him engineers to build him fortifications; but when Napoleon was defeated in Egypt, those places on the coast of Albania, which had belonged to the Venetians, and were now under the dominion of the French, were seized by A. Parga (q. v.) alone made a successful resistance. But he contrived that, in the treaty between Russia and the Porte, in 1800, all the Venetian places on the main land (and, therefore, Parga) should be surrendered to the latter power. He then attacked the brave Suliotes (q. v.), and conquered them in 1803, after a 3 years' war. The Porte now made him governor of Romania, where he continued his system of oppression still more openly than before. He then revenged on the inhabitants of Gardiki an injury which they had done to his mother, 40 years before, by putting to death 739 of the descendants of the perpetrators, they themselves being all dead. Security and quiet now reigned in his dominions; the roads were well constructed; commerce flourished; so that European travellers, with whom A. was glad to converse (see Hughes' *Travels in Greece*), acknowledged in him an active and intelligent governor. In 1807, he entered again into an alliance with Buonaparte, who sent him M. Pouqueville, as consul general, and from this time his dependence on the Porte was merely nominal. His object in this alliance was, to have Parga and the Ionian islands included in the peace of Tilsit. Failing to attain this end, he made an alliance with the English, and gave them many advantages; whereupon Parga was restored nominally to the Porte, but in reality to A. He afterwards caused it to be inserted in his gazette, that Maitland, who was the British lord high commissioner of the Ionian islands, had received from the Porte, at his recommendation, the order of the crescent. When A. thought himself strongly fixed in his power, he caused some of the *capitani* (q. v.) of the Greek Armatolicks, who had hitherto rendered him assistance, to be murdered (among them, the father of Ulysses, the famous chief), and had the murderers, also, put to death, that he might not be known as the author of the crime. At length, in 1820, the Porte determined to crush him.

Ismail Pascho Bey, with 5000 Turks, and supported by the *capitani*, who brought 10,000 soldiers to his standard, advanced against him. The Greeks surrounded his positions in the passes of the mountains, so that he was compelled to throw himself, with all his troops, into the citadel of Yanina, well provided with every thing. From hence he set Yanina on fire. Pascho Bey had no ordnance fit for besieging the city, and was suspected by the Porte, because he had called the Christians to his assistance. The Porte therefore gave the chief command to Kavanos Oglu. This commander dismissed the *capitani* and their bands, with cruel threats, compelling them to make restitution to the Turks for the loss which they had before occasioned them. Hereupon they went over to A., especially after they beheld the insurrection of the Hetaria, and aided him in the field against the Turks before Yanina. Kavanos Oglu could then do nothing against the rebels. The valiant Beba Pacha, his successor, died suddenly, after the capture of Arta, which Veli, A.'s son, had defended. The savage Khurschid Pacha, of the Morea, who was hated by all the Greeks, now advanced against the city with 12,000 men. But every attack was repulsed by A.'s brave troops; and the *capitani*, strengthened by the Suliotes, suddenly attacked the Turkish camp. Immediately the Hetaria (q. v.) called all Greece to arms. The Turks were now compelled to throw themselves into the strong places, and Khurschid retreated, Aug. 1821, with the remains of his army, out of Epirus into Macedonia. The Albanians alone, whom A. had beguiled with empty promises, left the tyrant. Khurschid Pacha attacked Yanina with a new army. The Greeks gave up A.'s cause for lost. He then determined, persuaded, perhaps, by his wife, Wasilika, who was a Greek, to treat with Khurschid. On receiving assurances, confirmed by an oath, that his property and his life should be spared, he surrendered his fortress to the pacha, Feb. 1, 1822, and retired to his summer-palace in the lake of Yanina. Here Khurschid's lieutenant, Mehmet Pacha, made known to him the sentence of death pronounced against him by the sultan. A. put himself on his defence, but was cut down, with 6 companions. This happened Feb. 5, 1822. The head of the rebel was sent to Constantinople. The Porte took possession of A.'s treasures. His sons, Veli and Muchtar Pacha, had come into the power of the Turks, in 1820, when the strong places of A. were

taken, and lived afterwards in exile, in Asia Minor. But attempting, by means of a Greek disguised as a dervise, to form a connexion with the party of their father, they were executed in Aug., 1821. A.'s grandson obtained from the Porte, in 1824, permission to retire to Larissa with A.'s widow, Wasilika. Pouqueville, in his *Histoire de la Régénération de la Grèce*, vol. i., paints a dreadful picture of A.'s barbarity, falsehood, and love of revenge. He says that A. caused a Greek lady, Euphrosyne, and 15 other women, to be thrown into the sea, because they appeared to have too much influence over his son Veli. Since his mother was an Albanese and his father a Turk, from this double relationship, he seized on all property left by persons dying, on pretence that the testator was his relation, by the mother's side, if he happened to be a Greek, or on his father's side, if a Turk. In this way A. amassed vast quantities of furniture and utensils, and occasionally held a market for the sale of these effects. A Jew was his treasurer. If he saw a beautiful maiden whom he wished to possess, his executioner, who was always at his side, went to the parents and said, "Your daughter has pleased Ali;" whereupon the daughter was sent to him, or the whole family were obliged to fly. The writer of this knows two families who were compelled to fly in this way. He took possession, in the same summary mode, of every thing which struck his fancy.—This favorite of fortune had great endowments from nature. He united a remarkably enterprising spirit with equal penetration; an extraordinary knowledge of men and things with determination and courage; great firmness with great adroitness. But he was false, suspicious, implacable and blood-thirsty from ambition and avarice; every means pleased him alike, provided that it led him to his object with quickness and safety. The dissensions of his enemies, the corruption of the divan, and the political weakness of the Porte, were the corner-stones on which this modern Jugurtha built up his ephemeral greatness.

ALIAS (*Latin*), otherwise; often used in the trial of criminals, after one name and before another, to signify that they have more than one appellation; as, John, *alias* Thomas.

ALIBI (*Latin*), elsewhere, in law, denotes the absence of the accused, at the time of the crime committed, from the place where he is charged with having committed it.

ALICANT, or **ALICANTE** (ancient *Lucuntum*); a city and port on the Mediterranean sea, lon. 0° 29' W., lat. 38° 21' N., with 17,300 inhabitants, situated in the Spanish kingdom of Valencia, with a castle which was formerly strong, but has fallen to decay since the war of the Spanish succession. It is the see of a bishop. The harbor is good. The maritime nations of Europe have all of them consuls here. The principal article of export is sweet wine, called *Alicant*, and also, from its dark color, *vino tinto*, which is, for the most part, sent to England. Charles V first planted the vines, bringing shoots from the Rhine. A. is important as the emporium of Valencian produce, and the central point of the commerce between Spain and Italy.

ALICONDA; an African tree, of an immense bulk, a native of Congo. Of the bark a coarse thread is made; the shell or rind of the fruit may be made into a nourishing pap, serves for vessels of various kinds, and gives an aromatic taste to water preserved in it. The small leaves are used as food in time of scarcity, the large ones to cover huts, and, being burned, make good soap.

ALIENS. The legislation of a nation in regard to aliens is a criterion of its civilization. All uncivilized nations treat the alien as an enemy, as out of the protection of law. Some difference, however, is universally made between aliens and natives; e. g., some states require the alien to give sureties when he institutes a criminal prosecution against a citizen. In some, he cannot become a guardian, or a witness of a will; the protection of the law may be denied him, and he himself be banished from the country. The alien, also, has no right to enjoy certain advantages, granted by the state to the citizen, in addition to the general protection of the laws; for instance, the benefit of institutions of education, poor-houses, &c. Some countries treat aliens with unreasonable severity, by throwing obstacles in the way of their admission, by rendering naturalization difficult, and by depriving them of personal security. Although the right of a state to forbid the entrance of aliens, even under pain of death, as in China and Japan, may be abstractly defended, the policy of exercising such a right can be justified only to a very limited extent. A high degree of civilization can be attained only by a free and active intellectual intercourse among nations, in like manner as their true prosperity is best promoted by a free

and active commerce. All the progress made by one nation, whether in the production of raw materials, or in the art of preparing them, or in scientific discovery, is advantageous to every other nation, if they only permit perfect freedom of intercourse. In our days, civilized states rarely oppose the personal entrance of aliens; but the liberty of commercial intercourse is still imperfectly understood. —In respect to naturalization, several states have had peculiar causes of caution; such, for instance, as the excessive influence of a foreign power, or the occupation of the throne by a foreign dynasty.—The following are the principal points in the laws of England and the U. States of America respecting aliens:—In regard to each country, an alien may be defined to be a person born out of the jurisdiction of the country, and not having acquired the rights of a citizen by naturalization. This, however, is not strictly true; for children, born out of the dominions of the English king, whose grandfathers by the father's side, or whose fathers were natural-born subjects, are entitled to the rights of native citizens, unless, at the time of their birth, their fathers were in the service of an enemy. In the U. States, this same right is given by the act of April, 1802, "to the children (born out of the jurisdiction of the U. States) of persons who now are or have been citizens of the U. States." "This clause," as chancellor Kent observes (*Commentaries on American Law*, vol. ii.), "applies only to the children of persons who then were, or had been, citizens, and consequently the benefit of this provision narrows rapidly by the lapse of time; and the time will soon arrive, when the children of American parents, born abroad, will be obliged to resort for aid to the dormant and doubtful principles of the English law." Minor children of naturalized persons are also admitted to the privileges of citizens in the U. States. Aliens cannot acquire a title to real property by descent or other mere operation of law. They may purchase it or receive it by devise, but the state has a right to take possession of it as forfeited, whenever it is ascertained, by a proper examination, to be the property of an alien. (In point of fact, aliens often do own real property in the U. States, holding it in the name of a friend.) They can acquire, hold and transmit movable property in the same manner as citizens, and they can bring suits for the recovery and protection of such property. They owe a local allegiance, and

are bound equally with natives to obey all general rules for the preservation of order, which do not relate specially to citizens. Even alien enemies may sue and be sued, as in time of peace. Aliens may dispose of their personal property by will, and, in case of their dying intestate, their personal property is distributed according to the law of distribution of the place of their domicile at the time of their death. The unjust and inhospitable rule of the most polished states of antiquity prevailed, in many parts of Europe, down to the middle of the last century. The law, which claimed for the benefit of the state the effects of deceased foreigners, who left no heirs who were natives, existed in France till 1791, when it was abolished by the first constituent assembly. Chancellor Kent, in the 2d volume of his very valuable *Commentaries on American Law*, observes, that "the Napoleon Code seems to have revived the harsh doctrine of the *droit d'aubaine*, with the single exception, that aliens should be entitled to enjoy in France the same civil rights as were secured to Frenchmen, *by treaty*, in the country to which the alien belongs. The law in France, at present, is, that a stranger cannot, except by special favor, dispose of his property by will; and, when he dies, the sovereign succeeds, by right of inheritance, to his estate." The remark on the revival of the *droit d'aubaine* by the Code Napoleon, we suppose to be correct; but we believe that this "inhospitable rule," as the learned judge justly terms it, has been since abolished. The article *Aliens*, in the German *Conversations-Lexicon*, states, that the *droit d'aubaine*, in France, was wholly abolished July 4, 1819, and the *Encyclopédie Moderne*, in the article *Étranger*, printed in 1828, says, that "aliens have been placed again under the protection of the common law of the country. They can now acquire and enjoy property, sell it, transmit it to their heirs, and dispose of it by testament or donation, like the other inhabitants of the kingdom. They cannot, however, exercise political rights, or be appointed to public offices, previous to naturalization."—An alien may, by letters patent *ex donatione regis*, be made an English subject, and is then called a *denizen*, being in a middle state between a natural-born subject and an alien. He may now purchase lands, or possess them by devise, but cannot take them by inheritance, although his heirs may inherit from him; the parent of the denizen being held to have no inheritable blood,

which the denizen possesses after becoming such. The full rights of a natural-born subject can be conferred only by act of parliament. Even after naturalization, an alien cannot become a member of the house of commons or privy council, or hold offices or grants under the crown. If the parliament wish to confer these privileges, as is sometimes the case when a foreign prince becomes connected, by marriage, with the royal family, a double act of legislation is necessary. In the U. States of America, naturalization confers all the privileges of a native citizen, except that of being a candidate for the office of president of the Union. Previous to becoming a citizen of the U. States, an alien must have resided in the country 5 years, and, 2 years before the ceremony of naturalization takes place, he must have abjured all allegiance to every other power. England is the only country where an act of the legislature is required for naturalization. In the countries of Europe generally, with the above-mentioned exception of England, the right of naturalization, in each particular case, belongs to the executive branch of government. It is so in France, in Bavaria, and in all the German states. In France, a residence of 10 years gives to the alien all the rights of a citizen, even that of becoming a member of the chamber of deputies (e. g. Benjamin Constant). In the states of the German confederacy, no German can be treated as an alien; e. g. the Prussian laws grant the full rights of a citizen to every one who takes up his residence in that state. The unjust distinctions formerly made between aliens and natives, in cases where the interests of the two came in collision, are going continually out of use. As to the right of aliens to own real estate, the laws of different countries are very different. We have already said, that this is not permitted in England and the U. S. of America. France allows it without limitation, like most of the German states. This right is a fundamental principle of the German confederation. By the law of July 4, 1819 (which contains a total abolition of the *droit d'aubaine*), every alien has an equal right of inheritance with native Frenchmen in respect to all real and personal goods in France; only, when Frenchmen have to divide an inheritance with foreign heirs, and the laws of the foreign country do not allow them a proportionate share of the property abroad, they receive in advance, from the property in France, as much as is necessary to the

restoration of equality.—In addition to what we have already said on the laws of England and the U. S. of America respecting aliens, we will add a short account of certain acts passed by the legislative bodies of these countries, with a view of guarding against the hostile attempts of aliens. In England, certain alien acts of recent date (33 Geo. III. c. 4. and 34 Geo. III. c. 43, 67) arose out of the influx of strangers into that country from the continent during the French revolution. They compelled the masters of ships arriving from foreign ports, under certain penalties, to give an account at every port of the number and names of the foreigners on board to the custom-house officers, appointing justices and others to grant passports to such aliens, and giving the king power to restrain them, and to send them out of the kingdom, on pain of transportation, and, on their return, of death. The same acts also direct an account to be given in of the arms of aliens, which, if required, are to be delivered up; and aliens are not to go from one place to another in the kingdom without passports. These acts have been, from time to time, amended and continued, as in 43 Geo. III. c. 155, &c. Of late, all restrictions of this kind on aliens have been abolished, and they are only obliged to inform the secretary of the home department, from time to time, of their places of residence. The only restrictions of this kind, on aliens in the U. States of America, are, that, in case of war between the U. States and any other nation, the president is authorized, if he sees fit, to order the subjects of the hostile country to be apprehended and removed, or to prescribe the conditions on which they shall be allowed to remain in the U. States. If such aliens are not chargeable with actual hostility, or with any other crime against the public safety, they are to be allowed a reasonable time to remove with their effects. During the late wars in Europe, severe restraints were imposed on Englishmen in France, in retaliation, as Buonaparte alleged, of the strict enforcement of the English alien acts in regard to French subjects. In the states of Europe, generally, aliens cannot travel without passports. In England and the U. States of America, none are required.

ALIMONY, in law; the allowance to which a woman is entitled on a legal separation from her husband, not occasioned by adultery or elopement on her part.

ALIQUNT PART, in arithmetic ; a part of a given quantity which will not divide it exactly, or without remainder.

ALIQUNT PART is such part of a number as will divide and measure it exactly, without any remainder. For instance, 2 is an aliquot part of 4, 3 of 9, and 4 of 16. To find all the aliquot parts of a number, divide it by its least divisor, and the quotient by its least divisor, until you get a quotient not further divisible, and you will have all the prime divisors or aliquot parts of that number. By multiplying any 2 or 3 of these together, you will find the compound aliquot parts. Aliquot parts must not be confounded with commensurable ones ; for though the former are all commensurable, yet the latter are not always aliquot parts : thus 4 is commensurable with 6, but not an aliquot part of it.

ALKALI, in chemistry ; from the Arabian *kali*, the name of a plant from the ashes of which one species of alkali can be extracted. The substances that are met with under the denomination of alkaline are possessed of certain peculiar properties ; they are mainly characterized, however, by a power of combining with acids in such a manner as to impair the activity of the latter, so that alkalies, as chemical agents, are distinguished by properties the reverse of acids ; acids and alkalies are, therefore, generally considered as antagonist substances. Besides the power of neutralizing acids, and thereby forming certain saline substances, the alkalies are further distinguished by the following properties :—1, they have an acrid taste and corrosive power when applied to some substances, thus proving caustic to the skin and tongue ; 2, they change vegetable blue to green, red to purple, and yellow to a reddish-brown (if the purple be reddened by an acid, an alkali will restore the original color) ; 3, they are almost indefinitely soluble in water ; that is, they combine with it in every proportion ; 4, they unite with oils and fats, and form by this union the well known compound called *soap*. There is another class of substances which have a strong analogy with alkalies, especially in the particular of opposition to acids, viz. the earths. Some of these, indeed, have been classed by Fourcroy among the alkalies, but they have been kept separate by others, on the ground that the analogy between them is far from amounting to an identity of properties. The true alkalies have been arranged by a modern chemist in three

classes :—1, those which consist of a metallic basis, combined with oxygen ; these are 3 in number—potash, soda and lithia ; 2, that which contains no oxygen, viz. ammonia ; 3, those containing oxygen, hydrogen and carbon ; in this class are placed aconita, atropia, brucia, circuta, datura, delphia, hyoscyamia, morphia, strychnina. And it is supposed that the vegetable alkalies may be found to be as numerous as the vegetable acids. The original distribution of alkaline substances was into volatile and fixed, the volatile alkali being known under the name of *ammonia* ; while, of the two fixed kinds, one was called *potash* or *vegetable*, because procured from the ashes of vegetables generally ; the other, *soda* or *mineral*, on account of its having been principally obtained from the incineration of marine plants.

ALKANET is a dyeing drug, the bark of a root which produces a rough plant (*anchusa tinctoria*), with downy and spear-shaped leaves, and clusters of small, purple or reddish flowers, the stamens of which are shorter than the corolla. This plant is sometimes cultivated in England, but by far the greater portion of the A. there used is imported either from the Levant, or from the neighborhood of Montpellier in France. A. imparts a fine deep-red color to all unctuous substances and to spirit of wine ; but it tinges water with a dull, brownish hue. Its chief use is for the coloring of oils, plasters, lip-salve and other similar articles. It is likewise employed in compositions for rubbing and giving color to mahogany furniture. Wax, tinged with A., and applied to the surface of warm marble, stains it flesh-color, and sinks deep into the stone.

ALKMAAR, Henry von. (See *Reynard the Fox*.)

ALCOHOL. (See *Alcohol*.)

ALKORAN. (See *Koran*.)

ALL-FOURS ; a game played by two persons with an entire pack of cards. The name is derived from the 4 chances of which it consists, viz. High, Low, Jack and Game.—*Laws of the game*. 1. If, in dealing, the dealer discovers any of the adversary's cards, a new deal may be demanded. 2. If the dealer, in dealing, discovers any of his own cards, he must abide by the same. 3. If it is discovered, previous to playing, that the dealer has given his adversary too many cards, there must be a new deal ; or, if both parties agree, the extra cards may be drawn by the dealer from his opponent's

hand; and the same if the dealer gives himself too many cards. But, in either case, if a single card has been played, then there must be another deal. 4. No person can beg more than once in a hand, unless both parties agree. 5. In playing, you must either follow suit or trump, on penalty of your adversary's adding one point to his game. 6. If either player sets up his game erroneously, it must not only be taken down, but the antagonist is entitled to score four points, or one, as shall have been agreed upon. 7. It is allowable for the person who lays down a high or a low trump to inquire whether the same be high or low.

ALL HANDS HOAY, in sea language; the order by which the ship's company is summoned on deck by the boatswain. *All hands to quarters hoay*, is the order to the crew for preparation for battle. This command is more generally given by the boatswain piping down the hatchway.

ALL IN THE WIND; the state of a ship's sails when parallel to the direction of the wind, so as to shake and shiver by turning the ship's head to, windward, either by design or neglect of the helmsman.

ALL SAINTS' BAY, or *Bahia da Todos Santos*; a bay on the coast of Brazil, province of Bahia. It is secure and large enough for a great number of ships. Lon. 38° 50' W.; lat. 13° 10' S.

ALL SAINTS, Feast of. After the persecution, in the 4th century, against the Christians, in the Roman empire, had ceased, the Sunday after Whitsuntide was appointed to commemorate the holy martyrs. Chrysostom's 74th homily was delivered on such an occasion, and shows how far they were from being objects of adoration, A. D. 380. This feast was introduced into the western church, in 610, by Boniface IV. The emperor Phocas had presented the Pantheon, in Rome, to this pope, who made a church of it, and dedicated it as such, March 4, to the honor of the virgin and all the martyrs. This church still exists under the name of *Rotunda* or *Maria dei Martiri*. Gregory IV, in 835, appointed Nov. 1 for the celebration of this feast, and consecrated it to all the saints and angels. In order that it might be generally celebrated, Gregory solicited the emperor Louis le Débonnaire to confirm it. About the year 840, we find this feast in the calendar of the monk Wandelbert. About 870, it was introduced into England.

ALL SOULS; a feast celebrated on the 2d of November, in commemoration of

all the faithful deceased. It was instituted in the 11th century.

ALIMENT; a term which includes every thing serving as nutriment for organized beings. In animals and vegetables we can observe the phenomena of decomposition and reproduction, and analyze the substances that administer to their growth and repair distinctly. Generally, however, the word A. is used for what serves as nutriment to animal life. It is, in this respect, a subject of great interest for the zoologist. In the present article we shall confine ourselves to the aliment of mankind.—Man, it is well known, derives nourishment both from animal and vegetable substances. He eats fruits, both ripe and unripe, roots, leaves, flowers, and even the pith and the bark of different plants, many different parts of animals, and the whole of some. Climate, custom, religion, the different degrees of want and of civilization, give rise to an innumerable diversity of food and drink, from the repast of the cannibal savage of New Zealand to that of the Parisian epicure at the table of Very; from the diet of the carnivorous native of the north to that of the Brahmin, whose appetite is satisfied with vegetables; from the oak-bark bread of the Norwegian peasant to the luxuriously-served table of a Hungarian magnate at Vienna. Some nations abhor what others relish, and great want often renders acceptable what, under other circumstances, would have excited the greatest disgust. The flesh of dogs is commonly eaten in China, and in Africa that of snakes, particularly of the rattlesnake and boa constrictor. Locusts are eaten both in Asia and Africa, and the Negroes on the coast of Guinea relish lizards, mice, rats, snakes, caterpillars, and other reptiles and worms. The Otomacs, a tribe of American Indians, are said by Humboldt to collect a kind of clay to eat in the rainy season. It is an interesting subject, by no means sufficiently investigated as yet, how far the different aliment of various countries is connected with the climate, &c., and what influence it exerts on the different races, as well as the consequences of introducing new species of aliments. Some excellent remarks on the national dishes of different nations were published by baron Rumor, a German, in 1822, in a work which he called *Kochkunst* (Art of Cookery). All kinds of aliment must contain nutritious substance, which, being extracted by the act of digestion (q. v.), enters the blood, and effects by assimilation (q. v.) the repair

of the body. (See *Nutrition*.) Alimentary matter, therefore, must be similar to animal substance, or transmutable into such. In this respect, alimentary substances differ from medicines, because the latter retain their peculiar qualities in spite of the organs of digestion, and will not assimilate with the animal substance, but act as foreign substances, serving to excite the activity of particular organs or systems of the body. All alimentary substances must, therefore, be composed, in a greater or less degree, of soluble parts, which easily lose their peculiar qualities in the process of digestion, and correspond to the elements of the body. These substances, in their simple state, are mucilage, gelatin, gluten, albumen, farina, fibrin and saccharine matter. Of these, vegetables contain chiefly mucilage, saccharine matter and farina, which latter substance, particularly in connexion with the vegetable gluten, by which both become apt for fermentation, and thus for dissolution and digestion, is the basis of very nutritious food. The nutritive part of fruits consists of their saccharine matter and a little mucilage. In animal food, gelatin is particularly abundant. The nutritiousness of the different species of food and drink depends, therefore, upon the proportion which they contain of those substances, and the mode in which they are connected, favoring or obstructing their dissolution. Organs of digestion in a healthy state dissolve alimentary substances more easily, and take up the nutritious portions more abundantly, than those of which the strength has been impaired so that they cannot resist the tendency of each substance to its peculiar chemical decomposition. The wholesome or unwholesome character of any aliment depends, therefore, in a great measure, on the state of the digestive organs, in any given case. Sometimes a particular kind of food is called wholesome, because it produced a beneficial effect of a particular character on the system of an individual. In this case, however, it is to be considered as a medicine, and can be called wholesome only for those whose systems are in the same condition. Very often a simple aliment is made indigestible by artificial cookery. Aliments abounding in fat are unwholesome, because fat resists the operation of the gastric juice. The addition of too much spice makes many an innocent A. injurious, because spices resist the action of the digestive organs, and produce an irritation of particular parts of the system.

They were introduced as artificial stimulants of appetite. In any given case, the digestive power of the individual is to be considered, in order to determine whether a particular aliment is wholesome or not. In general, therefore, we can only say, that that A. is healthy, which is easily soluble, and is suited to the power of digestion of the individual; and, in order to render the A. perfect, the nutritious parts must be mixed up with a certain quantity of innocent substance affording no nourishment, to fill the stomach, because there is no doubt, that many people injure their health by taking too much nutritious food. In this case, the nutritious parts which cannot be dissolved act precisely like food which is in itself indigestible. (See *Digestion*.) In Prussia and Austria, where, as in many despotic governments, the medical police is very good (this being a thing much more easily regulated in an absolute government than in a free one), the public officers pay much attention to aliment, and are careful that provisions exposed to sale shall be of a good quality, particularly that no decayed or adulterated things are sold to the poor. Such regulations exist, to a certain extent, in England, France, the U. States of A. and, in fact, in every civilized country. The kind of A. used influences the health and even the character of man. He is fitted to derive nourishment both from animal and vegetable A., but can live exclusively on either. Experience proves that animal food most readily augments the solid parts of the blood, the fibrin, and, therefore, the strength of the muscular system, but disposes the body, at the same time, to inflammatory, putrid and scorbutic diseases, and the character to violence and coarseness. On the contrary, vegetable food renders the blood lighter and more liquid, but forms weak fibres, disposes the system to the diseases which spring from feebleness, and tends to produce a gentle character. Something of the same difference of moral effect results from the use of strong or light wines. But the reader must not infer that meat is indispensable for the support of the bodily strength. The peasants of some parts of Switzerland, who hardly ever taste any thing but bread, cheese and butter, are vigorous people. The nations of the north incline generally more to animal A.; those of the south, and the Orientals, more to vegetable. These latter are generally simpler in their diet than the former, when their taste has not been corrupted by luxurious indulgence. Some tribes in the East, and the

caste of Brahmins in India, live entirely on vegetable food. The inhabitants of the most northern regions live almost entirely upon animal food, scarcely ever partaking of any vegetable substance, at least during the greater part of the year. Some nations feed chiefly on terrestrial animals, others on aquatic ones.

ALLA BREVE is the proper designation of the time of a piece of music, in which the breve is equal to a semibreve in $\frac{2}{3}$ time; and is to be played in a movement of twice the usual rapidity; so that a breve is played as fast as a semibreve, a semibreve as fast as a minim, and so on. It is usual, in this mode of time, to prefix to the piece a designation, that resembles a C with a perpendicular line through it, but is intended to represent a circle bisected; sometimes also a 2° , or large 2, or $\frac{2}{4}$. It is, however, distinct from two-minim time, which is also often called *alla breve* time, and may be designated by 2, and C with a perpendicular line through it; but the value of the note corresponds with the designation. Besides, the expression *alla cappella* is sometimes used; by which phrase is meant, that though the notes in their proportional magnitude are the same as in the ancient psalm tune, yet they are not to be given in the choral style as sung by the congregation, but more lively, as is usual in the chapel style.

ALLAH, or **ALLA**, in Arabic; the name of God, the Creator of all nature, of whom Mohammed says, he is the only being who derives his existence from himself, and has no equal. All creatures are made by him. He is Lord of the material and spiritual universe; and Mohammed inculcates obedience to him as the one true God, the Author of his religion. The word is compounded of the article *al*, and the word *Elah*, which signifies *the Adored* and *the Adorable*, and is synonymous with the singular of the Hebrew word *Elohim*.

ALLAN, David, a Scotch historical painter, was born in 1744. Some early efforts of his genius having attracted attention, he was sent to an academy of painting and engraving, in Glasgow, where he remained 7 years. He afterward visited Italy, where he passed 16 years in pursuing his studies, and copying the remains of antiquity and the old masters. While at Rome, in 1773, he received a gold medal, for the best specimen of historical composition. On his return, he established himself at Edinburgh, where he died, in 1796. His illustrations of the Gentle Shepherd, the Cotter's Saturday Night, and other sketches

of rustic life and manners in Scotland, in aquatinta, obtained for him the name of the *Scottish Hogarth*. His principal painting is the *Return of the Prodigal Son*. The subject of his prize composition, which is much admired, is the *Origin of Painting*.

ALLAY. (See *Alloy*.)

ALLEGHANY or **APPALACHIAN MOUNTAINS**; a range of mountains in the U. States. They commence in the northern part of Georgia and Alabama, and run north-east to the state of New York, nearly parallel with the sea-coast, about 900 miles in length, and from 50 to 200 in breadth. They divide the rivers and streams of water, which flow into the Atlantic on the E., from those which flow into the lakes and the Mississippi on the W. These mountains are not confusedly scattered and broken, but stretch along in uniform ridges, for the most part scarcely half a mile high. The several ridges are known by different names, as Blue ridge, Alleghany ridge, north mountain, Jackson's mountain, Laurel mountain, Cumberland mountains, &c.—For the geological structure of these mountains, see *North America*.

ALLEGHANY; a river which rises in Lycoming county, Pennsylvania, winds through the south part of New York, turns again into Pennsylvania, runs S. W., and unites with the Monongahela at Pittsburg, to form the Ohio. It is navigable for keel boats of 10 tons to Hamilton, in New York, 260 miles above Pittsburg. Its most important branches are the Kiskiminetas, and Toby's and French creeks.

ALLEGIANCE (from *alligare*, to bind); the obedience which every subject or citizen owes to the government of his country; in England and the U. States, obedience to its lawful commands. It is the doctrine of the English law, that natural-born subjects owe an allegiance which is intrinsic and perpetual, and which cannot be divested by any act of their own. It has been a question frequently and gravely argued, both by theoretical writers and in forensic discussions, whether the English doctrine of perpetual allegiance applies in its full extent to the citizens of the U. States of America. From a historical review of the principal discussions in the federal court of the U. States on this interesting subject in American jurisprudence, the better opinion would seem to be, that a citizen cannot renounce his allegiance to the U. States without the permission of government, to be declared by law; and that, as there is no existing legislative regulation on the subject,

the rule of the English common law remains unaltered. (See Kent's *Commentaries*, vol. ii.) If an alien wishes to become a citizen of the U. States, he must renounce his allegiance to the government whose subject he has been, as much as two years before he can be admitted to take the oath of allegiance to the government of the U. States.

ALLEGORY (from the Greek *ἀλλο*, something else, and *λογεῖν*, to speak); a figurative representation, in which the signs (words or forms) signify something besides their literal or direct meaning. Irony is distinguished from allegory by conveying a meaning directly contrary to the literal signification of the words, while in allegory there is an agreement between the literal and the figurative sense, each of which is complete in itself. The allegory should be so constructed as to express its meaning clearly and strikingly; and the more clear and striking the meaning is, the better is the allegory. All of the fine arts have, to a certain degree, an allegorical character, because, in all, the visible signs generally represent something higher,—the ideal; but, in the narrower sense of allegory, its object is to convey a meaning of a particular character by means of signs of an analogous import. The allegory, moreover, ought to represent an *ensemble*, by which it is distinguished from the trope or metaphor and the conventional symbol. The last differs from the allegory, also, in this particular, that its character could not be understood, if it had not been previously agreed upon. For instance, the olive-branch would not convey the idea of peace if it had not been adopted as its sign. From all which has been said, it is clear that the allegory can take place in rhetoric, poetry, sculpture, painting and pantomime, but never in music or architecture, because these two arts are not capable of conveying a double meaning in their representations. As an instance of allegory in poetry, Prior's verses from *Henry* and *Emma* may serve;

Did I but purpose to embark with thee
On the smooth surface of a summer's sea,
While gentle zephyrs play with prosperous gales,
And fortune's favor fills the swelling sails,
But would forsake the ship, and make the shore,
When the winds whistle, and the tempests roar?

or the often quoted ode 1, 14 of Horace. An instance of allegory in painting or sculpture is the representation of peace by two turtle-doves sitting on their nest in a helmet or a piece of ordnance; or Guido's representation of *Fortuna*. The representation of an allegory ought always to lead

directly to its figurative meaning; thus a warrior throwing the doves out of a helmet would be a bad allegory of war; a good one would be a husbandman making a weapon out of his sithe. In rhetoric, allegory is often but a continued metaphor. The symbolic and allegoric representation often come very near to each other, and sometimes it is hard to say to which a piece of art most inclines. This is the case, for instance, with the beautiful representations of Justice, Poetry, &c., by Raphael, in the Vatican. Parables and fables are a species of allegory; e. g. the beautiful parable in one of the tales in the *Arabian Nights*, in which the three religions, the Mohammedan, Jewish and Christian, are compared to three similar rings, bequeathed to three brothers by their father. This allegory has been repeated by Boccaccio in a tale of his *Decameron*, and by Lessing in his *Nathan the Wise*. Allegory in rhetoric was used by the most ancient nations, because it is well fitted to express an elevated state of feeling, and, at the same time, to give somewhat of the charm of novelty to ideas at once common and important. Addison truly says, "Allegories, when well chosen, are like so many tracts of light in a discourse, that make every thing about them clear and beautiful." In painting and sculpture, however, the ancients made by no means so much use of allegory as the modern artists, partly owing to their greater facility of expressing certain ideas by means of the stories and the images of their different gods, who all more or less represented a single idea. The moderns have no such copious stores of illustration, the Protestants particularly, who are not familiar with the multitude of Catholic saints and legends; thus they are often obliged to express single ideas by allegory. Another cause of the greater prevalence of allegory in modern times is to be found in the circumstance, that allegory is always more cultivated in the period of the decline of the arts, when the want of great and pure and simple conceptions of the beautiful is supplied by studied and ingenious inventions, as well as in the fact, that the ancients were more exclusively conversant with simple ideas than the moderns, among whom the relations of society are much more complicated, and every branch of science, art and social life more fully developed. Sometimes, whole poems are allegorical, as Spenser's *Fairy Queen*; but, in these cases, the poet must take great care not to fall into trifling. Bunyan's *Pilgrim's*

Progress is a famous instance of a work wholly allegorical. There was a time when every poem was taken as an allegory; even such works as those of Ariosto and Tasso were tortured from their true meaning, and made to pass for allegorical pictures. There exist many editions of these poets, in which, at the beginning of each canto, the allegory of it is given. With equally little reason, the Song of Solomon has long been considered an allegory of Christ's love to his church. The most productive period of allegory in painting and sculpture was that of Louis XV, which may be styled, in regard to the arts, the *age of flattery*. During this period, innumerable bad, and some good ones were produced. They are now much less in vogue. Rubens painted several fine allegorical pictures, in the Luxemburg gallery. Lessing, Herder and Winckelmann have investigated the subject of this article, perhaps, more thoroughly than any other modern writers. No poet, in our opinion, has made use of allegory in a more powerful and truly poetical manner than the great Dante; yet the opinion that the whole of his *Divina Commedia* is allegorical, is quite erroneous.

ALLEGRI, Gregorio; born at Rome, in 1590, and died there in 1652; a singer in the papal chapel, and considered to this day, in Italy, one of the most excellent composers of that time. He was a scholar of Nanini. His *Miserere*, one of the most sublime and delightful works of human art, has particularly distinguished him. It is even now sung yearly, during passion-week, in the Sistine chapel at Rome. This composition was once esteemed so holy, that whoever ventured to transcribe it was liable to excommunication. Mozart disregarded this prohibition, and, after two hearings, made a correct copy of the original. In 1771, it appeared at London, engraved, and in 1810 at Paris, in the *Collection des Classiques*. In 1773, the king of England obtained a copy, as a present from the pope himself. According to the opinion of Baini, at present the leader of the choir (*maestro della cappella*), in the pope's chapel, the *Miserere* of Allegri was not composed for all the voices, but only the bass of the 18 or 20 first parts; all the rest is the addition of successive singers. But in the beginning of the 18th century, the existing manner of singing it was established as a standard at Rome, by the orders of the pope. A full score of it has never existed.—A. is also the name of an Italian satirical poet, a native of Florence, who flourished towards the

end of the 16th century. His Christian name was Alexander.

ALLEGRO, in music; a word denoting one of the six distinctions of time. It expresses a sprightly motion, the quickest of all, and originally means *gay*. The usual distinctions succeed each other in the following order—*grave*, *adagio*, *largo*, *vivace*, *allegro*, *presto*. Allegro time may be heightened, as *allegro-ssai* and *allegro-ssimo*, very lively; or lessened, as *allegretto* or *poco allegro*, a little lively. *Piu allegro* is a direction to play or sing a little quicker.

ALLELUIA. (See *Halleluia*.)

ALLEMAND; 1, a well-known dance, originally German, distinguished for its sprightliness; 2, a very lively dancing-tune, in $\frac{2}{4}$ time, which has much resemblance to the French tambourine.

ALLEN, Ethan, a brigadier-general in the American revolutionary army, was born in Salisbury, Connecticut, but was educated principally in Vermont, to which state his parents emigrated whilst he was yet young. His education was of a limited character. In the disturbances which agitated Vermont, he took an active part against the royal authority, in favor of the *Green mountain boys*, the name by which the settlers in that territory were designated.—In 1775, soon after the battle of Lexington, in compliance with the request of the legislature of Connecticut, A. collected a body of about 230 Green mountain boys, and marched against the fortresses of Ticonderoga and Crown Point, for the purpose of taking them by assault. At Castleton, he was joined by colonel Arnold, who had received directions from the Massachusetts committee of safety to raise a corps of men for the same purpose, but, failing to accomplish that object, he determined to proceed with the small force of colonel A. They arrived at the lake opposite to Ticonderoga, on the evening of May 9, and, having with great difficulty procured boats, landed 83 men on the other shore during the night. The day beginning, however, to dawn, A. was obliged to attack the fort before his rear could cross the lake, having previously animated his soldiers, by a harangue, which he concluded with saying, "I now propose to advance before you, and in person to conduct you through the wicket-gate; but, inasmuch as it is a desperate attempt, I do not urge on any one contrary to his will. You that will undertake voluntarily, poise your firelocks." They all immediately poised their firelocks. He then advanced at the head of the centre file to the wicket-gate, where a sentry

snapped his fusée at him, and retreated through the covered way, followed by A., who formed his men upon the parade. The apartments of the commanding officer having been pointed out to him by a sentry who asked quarter, he instantly repaired thither, and, holding his sword over captain de Laplace, whom he found undressed, demanded the surrender of the fort. The latter asking him by what authority, "I demand it," said A., "in the name of the great Jehovah, and of the continental congress." De Laplace was constrained to comply with the summons, and the fort, with its stores and garrison, was given up. On the same day, also, A. obtained possession of Crown Point, and soon after captured a sloop of war, the only armed vessel on lake Champlain, and thus acquired the entire command of that lake.—In the following autumn, he was twice despatched into Canada, to engage the inhabitants to lend their support to the American cause. In the last of these expeditions, he formed a plan, in concert with colonel Brown, to reduce Montreal. September 10, 1775, A. accordingly crossed the river, at the head of 110 men, but was attacked, before Brown could join him, by the British troops, consisting of 500 men, and, after a most obstinate resistance, was taken prisoner. The events of his captivity he himself has recorded in a narrative compiled by him after his release, in the most singular style, but apparently with great fidelity.—For some time, he was kept in irons, and treated with much severity. He was sent to England as a prisoner, with an assurance, that, on his arrival there, he would meet with the halter. During the passage, extreme cruelty was exercised towards him and his fellow-prisoners. They were all, to the number of 34, thrust, hand-cuffed, into a small place in the vessel, enclosed with white-oak plank, not more than 20 feet wide by 22 long.—After about a month's confinement in Pendennis castle, near Falmouth, he was put on board a frigate, January 8, 1776, and carried to Halifax. Thence, after an imprisonment of five months, he was removed to New York. On the passage from Halifax to the latter place, A. was treated with great kindness by captain Smith, the commander of the vessel, and evinced his gratitude by refusing to join in a conspiracy to kill the British captain and seize the frigate. His refusal prevented the execution of the plan. He remained at New York for a year and a half, sometimes in confinement, and sometimes at large, on parole.—On May 6, 1778, A. was

exchanged for colonel Campbell, and immediately afterwards repaired to the headquarters of general Washington, by whom he was received with much respect. As his health was impaired, he returned to Vermont, after having made an offer of his services to the commander in chief, in case of his recovery. His arrival in Vermont was celebrated by the discharge of cannon; and he was soon appointed to the command of the state militia, as a mark of esteem for his patriotism and military talents. A fruitless attempt was made by the British to bribe him to lend his support to a union of Vermont with Canada. He died suddenly at his estate in Colchester, February 13, 1789.—General Allen was a man of a strong and enterprising, but haughty and restless mind. Although his education had been circumscribed, he was daring in his pretensions to knowledge, and bold and peremptory in his assertions. Besides the narrative of his captivity, which we have noticed, and a number of pamphlets in the controversy with New York, he published a "Vindication of the Opposition of the Inhabitants of Vermont to the Government of New York, and their Right to form an independent State," 1779, and a work, entitled "Allen's Theology, or the Oracles of Reason," the first formal publication, in the U. States, openly directed against the Christian religion. A. was a confirmed infidel. He adopted some of the most fantastical and absurd notions imaginable, believing, with Pythagoras, that the soul of man, after death, would live again in beasts, birds, fishes, &c. He often told his friends, that he himself would live again under the appearance of a large white horse. However, there is an anecdote extant, which proves that he professed to entertain those ideas more from an affectation of singularity, than from conviction. Whilst sitting in his library, conversing with a physician by the name of Elliot, A. was informed that his daughter was dying, and desired to speak with him. He immediately repaired to her chamber, followed by doctor Elliot. His wife was distinguished for piety, and had instructed her daughter in the principles of Christianity. As soon as her father stood at her bedside, she said to him, "I am about to die; shall I believe in the principles you have taught me, or shall I believe in what my mother has taught me?" He became greatly agitated; his chin quivered; his whole frame shook; and, after waiting a few moments, he replied, "Believe what your mother has taught you."

ALLEYN, Edward; a celebrated actor in the reigns of Elizabeth and James I, better known as the founder of Dulwich college. He was born 1566, in London, in the parish of St. Botolph, Bishopsgate. According to the testimony of Ben Jonson and the other dramatists of the age, he was the first actor of the day, and of course played leading characters in the plays of Shakspeare and Jonson; although, in consequence of the names not being set against the parts in the old editions of those authors, his particular share in them is not ascertained. He was keeper of the royal bear-garden. Having become wealthy, he founded Dulwich college, for the maintenance of one master, one warden, and four unmarried fellows of the name of Allen, three whereof were to be clergymen, and the fourth a skilful organist; also six poor men and as many women; and 12 poor boys, to be educated until of the age of 14 or 16, and then put out to some trade or calling. Aubrey tells a ridiculous story of the origin of this donation, in a fright endured by A., who saw a real devil on the stage, while himself performing a fictitious one in a drama by Shakspeare. After the college was built, he met with some difficulty in obtaining a charter, owing to the opposition of the lord chancellor Bacon. The very rational letter of this great man to the marquis of Buckingham on this subject is extant. A. was the first master of his own college, and, dying in 1626, was buried in the new chapel belonging to it. Within these few years, it has been brought into great additional notice by the admirable collection of pictures of the best masters, bequeathed by sir Francis Bourgeois.

ALLGEMEINE ZEITUNG, i. e. General Gazette; a German political daily paper, published at Augsburg in Bavaria, for which reason it is sometimes called by foreigners the *Augsburg Gazette*. The A. Z. is by far the best German newspaper, and particularly rich in information respecting the affairs of the East and of Italy. The summary of new publications which it contains semi-annually after the book-fair in Leipsic is excellent. Baron Cotta, the owner of the A. Z., has regular correspondents in Constantinople, in almost all the capitals of Europe, and in the U. States. He has recently established another daily paper, *Das Ausland*, at Munich, which contains accounts of foreign countries only. The A. Z. has existed now 40 years or longer. It is, like all the German newspapers, small in com-

parison with the English or American, and is afforded at a very low price.—For a general view of the German newspapers, see *Newspapers*.

ALLIANCE; a league between two or more powers. Alliances are divided into offensive and defensive. The former are for the purpose of attacking a common enemy, and the latter for mutual defence. An alliance often unites both of these conditions. Offensive alliances, of course, are usually directed against some particular enemy; defensive alliances against any one from whom an attack may come. As regards the obligations and rights of the contracting parties, alliances are divided into three chief classes:—1. Those in which the allied parties agree to prosecute the war with their whole force (*société de guerre; alliance pour faire la guerre en commun*). In this case, all the parties are principals. 2. Auxiliary alliances, if the allies pledge themselves mutually to furnish assistance to a fixed amount, in which case only one of the contracting powers appears as principal. 3. Mere treaties, by which one power promises, in consideration of certain subsidies, to furnish troops, or to place its troops in the pay of another power, without directly taking part in the war; or to make only advances of money. Triple alliance is an alliance between three, quadruple alliance, quintuple alliance, between four and five powers. (See *Coalition, Quadruple Alliance, and Holy Alliance*.)

ALLIANCE, Holy. (See *Holy Alliance*.)

ALLIGATION is of two kinds, alternate and medial. Alligation *alternate* is the method of finding the quantities of ingredients of different values, necessary to form a compound of a given value, and it is the converse of alligation *medial*, which teaches how to find the mean rate of a mixture, when the particular quantities composing the mixture, and their respective mean rates, are given.

ALLIGATOR; the name of a large reptile, of the *saurian* or lizard order, derived, according to Cuvier, from a corruption of the Portuguese word *lagarto*, equivalent to the Latin *lacerta*. The alligators or caimans form the second subgenus of Cuvier's crocodile family, and belong to the southern parts of the American continent. Two species, very numerous in these regions, are well known; the spectacled caiman, *crocodilus sclerops*, most common in Guiana and Brazil; and the pike-nosed A. (*C. lucius*), frequenting the southern rivers and lagoons of the U. States.—In the water, the full-grown A.

is a terrible animal, on account of its great size and strength. It grows to the length of 15 or 20 feet, is covered by a dense harness of horny scales, impenetrable to a musket ball, except about the head and shoulders, and has a huge mouth, armed with a fearful row of strong, unequal, conical teeth, some of which shut into cavities of the upper jaw-bone. They swim or dart along through the water with wonderful celerity, impelled by their long, laterally-compressed and powerful tails, which serve as very efficient oars. On land, their motions are proportionally slow and embarrassed, because of the length and unwieldiness of their bodies, the shortness of their limbs, and the sort of small, false ribs which reach from joint to joint of their necks, and render lateral motion very difficult. In addition to the usual number of ribs and false ribs, they are furnished with others, for the protection of the belly, which do not rise up to the spine. The lower jaw extends farther back than the skull, so that the neck must be somewhat bent when it is opened; the appearance thus produced has led to the very universal error of believing that the A. moves its upper jaw, which is incapable of motion, except with the rest of the body. Under the throat of this animal are two openings or pores, the excretory ducts from glands, which pour out a strong, musky fluid, that gives the A. its peculiarly unpleasant smell.—In the spring of the year, when the males are under the excitement of the sexual propensity, they frequently utter a roar which is a very alarming sound, from its harshness and reverberation, resembling distant thunder, especially where numbers are at the same time engaged. At this period, frequent and terrible battles take place between the males, which terminate in the discomfiture and retreat of one of the parties. At this season, also, an old champion is seen to dart forth on the surface of the waters, in a straight line, at first as swiftly as lightning, gradually moving slower as he reaches the centre of a lake; there he stops, inflates himself by inhaling air and water, which makes a loud rattling in his throat for a moment, until he ejects it with vast force from his mouth and nostrils, making a loud noise, and vibrating his tail vigorously in the air. Sometimes, after thus inflating himself, with head and tail raised above the water, he whirls round until the waves are worked to foam, and, at length, retires, leaving to others an opportunity of repeating similar exploits, which

have been compared to an Indian warrior rehearsing his acts of bravery, and exhibiting his strength by gesticulation.—The females make their nests in a curious manner, upon the banks of rivers or lagoons, generally in the marshes, along which, at a short distance from the water, the nests are arranged somewhat like an encampment. They are obtuse cones, 4 feet high, and about 4 feet in diameter at the base, built of mud and grass. A floor of such mortar is first spread upon the ground, on which a layer of eggs, having hard shells, and larger than those of a common hen, are spread. Upon these another layer of mortar, 7 or 8 inches in thickness, is deposited, and then another bed of eggs; and this is repeated nearly to the top. From 100 to 200 eggs are found in one nest. It is not ascertained whether each female watches her own nest exclusively, or attends to more than her own brood. It is unquestionable, however, that the females keep near the nests, and take the young under their vigilant care as soon as they are hatched, defending them with great perseverance and courage. The young are seen following the mother through the water like a brood of chickens following a hen. When basking in the sun on shore, the young are heard whining and yelping about the mother, not unlike young puppies. In situations where alligators are not exposed to much disturbance, the nesting-places appear to be very much frequented, as the grass and reeds are beaten down for several acres around. The young, when first hatched, are very feeble and helpless, and are devoured by birds of prey, soft-shelled turtles, &c., as well as by the male alligators, until they grow old enough to defend themselves. As the eggs are also eagerly sought by vultures and other animals, the race would become speedily extinct, but for the great fecundity of the females.—The A. is generally considered as disposed to retire from man, but this is only to be understood of alligators frequenting rivers or waters where they are frequently disturbed, or have learned to dread the injuries which man inflicts. In situations where they are seldom or never interrupted, they have shown a ferocity and perseverance in attacking individuals in boats, of the most alarming character; endeavoring to overturn them, or rearing their heads from the water, and snapping their jaws in a fearful manner. Bartram, who has made more interesting and valuable observations on the A. than any

other naturalist, gives numerous instances of their daring and ferocious disposition, and himself very narrowly escaped with his life on several occasions. At present, alligators, though still numerous in Florida and Louisiana, are no longer regarded as very dangerous. Their numbers annually decrease, as their haunts are intruded upon by man, and at no distant period they must be nearly, if not quite, exterminated.—In the winter, the alligators spend great part of their time in deep holes, which they make in the marshy banks of rivers, &c. They feed upon fish, various reptiles, or carrion flesh which is thrown into the streams, and, though very voracious, are capable of existing a long time without food. The barking of a dog, it is said, will at any time cause them to forsake their holes, and come on shore, as they prey upon any small quadruped or domestic animal, which comes within their reach. They have a very small brain, and live a long time even after it is destroyed. Titian Peale, a naturalist distinguished for practical acquaintance with the works of nature, informed the writer that he destroyed the whole superior part of the head and brain of a large A. by a ball from his gun, in the morning of a long day, and, on passing the same place in the evening, he found the animal had crawled off. Following his trail through the marsh for a considerable distance, he found him still alive, and, though dreadfully mangled about the head, ready to make battle.—In the economy of nature, alligators are of very considerable importance. They abound most where fish and other creatures are found in the greatest numbers. Their voracity tends to repress exuberant increase in the beings upon which they feed; while themselves are exposed to very numerous enemies in early life, and gradually pass away, as man usurps the sway over their peculiar dominions. The peculiarities of construction, &c. will be given under the title *Crocodile*, which see.

ALLITERATION; a figure or embellishment of speech, which consists in the repetition of the same consonants, or of syllables of the same sound, in one sentence. Such alliteration sometimes happens without the intention of the writer or speaker, and may be disagreeable to the ear, in the same way as a rhyme occurring involuntarily. Alliteration is pleasing when skilfully managed, so as to produce what the French have called *harmonie imitative*; but by too frequent use, it becomes trivial and ridiculous. An

excellent instance of imitative harmony and happy alliteration is afforded by the line of Virgil, describing the measured gallop of the horse—

Quadrupedante pedum sonitu quatit ungula campum;

or another verse of the same poet—

Luctantes ventos tempestatesque sonoras—

in which the continual recurrence of the *t* reminds us of the uninterrupted noise of the winds. Greek literature affords many instances of this imitative harmony. English poetry furnishes many beautiful specimens of alliteration, but instances of an unhappy use of this figure are not wanting even in good writers. Gray has many alliterations, e. g.

Weave the warp and weave the woof,

or

Ruin seize thee, ruthless king!

Among the French, a line of Racine—

Pour qui sont ces serpens qui sifflent sur vos têtes!—

is thought to represent very happily the hissing of the serpent. In German literature, Bürger, perhaps, has made the most use of alliteration; but he often carries it too far. A sonnet of A. W. Schlegel finishes with the following:

Wo Liebe lebt und laßt ist lieb das Leben.

Among modern languages, alliteration is altogether more used in those belonging to the Teutonic stock, than in those of Latin origin.

ALLIX, Jacques Alexandre François; a French lieutenant-general, and member of the academy of sciences at Göttingen; born at Perci, in Normandy, Sept. 21, 1776. He distinguished himself early in the military career, e. g. in the war of St. Domingo, but, not having shown much zeal on the 18th of Brumaire, he did not rise in the service. In 1808, he entered the army of the king of Westphalia. In 1813, he defended that kingdom with courage. On both the occasions when France was conquered by the allies, he served his country faithfully. The ordonnance of Louis XVIII, July 24, 1815, obliged him to leave the kingdom. In his exile, he wrote his work against Newton's law of gravitation, in which he explains all the motions of the heavenly bodies by the evolution of gases in the different atmospheres. This work has been translated into many languages, but was disapproved by Laplace. In 1819, he returned to France, and entered again the military service.

ALLODIUM ; land held by a man in his own right, without any feudal obligation. It is opposed to *fee*, or *feudum*. All landed property must be either feudal or allodial. In England, according to the theory of the British constitution, all land is held in fee. The word *allodial* is, therefore, never applied to landed property there. Such as is really allodial bears the name of *fee-simple*. The same word is used in the U. States of America, though land is not held there, in fact, by any feudal tenure. In ancient France, the feudal character of landed property was taken for granted (*nulle terre sans seigneur*), until the contrary was proved. In Germany, the contrary rule prevails. As the vassal is under many restrictions in respect to the disposal of the feud, and as the principles of inheritance with respect to the A. are, in some particulars, different from those which govern the feud, the distinction is of importance. If a feud falls back to the lord, of course the A. is separated from it; the same takes place when the heir of the A. and that of the feud are different persons. In Germany, the word *allodificiren* signifies to make an estate allodial, which is favored by many governments. In such *allodification*, a part of the value must be paid as a compensation to the former lord, or a fixed annual tax (*canon*) is imposed on the estate. The great, and generally successful efforts, which the Prussian government has made for about 17 years, to absolve the estates of the peasants from all feudal obligations, on the payment of a certain part of their value to the lord, must be considered as one of the consequences of the enlightened spirit of the age, even in countries not favored with a representative government.—The immense change which took place in France, during the revolution, by the extinction of all feudal tenures, and the endeavors to bring about the same change wherever governments in the French spirit were established, e. g. in the kingdom of Westphalia, are well known. The etymology of the word A. is uncertain; most probably it is of German origin.

ALLOY ; a composition, the result of a mutual combination of two or more metals. To alloy generally means to mix a metal of less with one of more value.—Various processes are adopted in the formation of alloys, depending upon the nature of the metals. Many are prepared by simply fusing the two metals in a covered crucible. It has been a question whether alloys are to be considered as

compounds, or as mere mixtures. Mr Dalton considers alloys to be chemical compounds, one striking instance of which is in the alloy of tin and copper, called *speculum metal*; the smallest deviations from the true proportions will spoil the alloy as a reflector. In some cases, the metals are found to unite in definite proportions only; and it is probable that all the alloys contain a definite compound of the two metals.—The principal characters of the alloys are the following:—1. We observe a change in the ductility, malleability, hardness and color. Malleability and ductility are usually impaired, and often in a remarkable degree; thus gold and lead, and gold and tin, form a brittle alloy. The alloy of copper and gold is harder than either of its component parts; and a minute quantity of arsenic added to copper renders it white. 2. The specific gravity of an alloy is rarely the mean of its component parts; in some cases an increase, in others a diminution of density having taken place. 3. The fusibility of an alloy is generally greater than that of its components. Thus platinum, which is infusible in our common furnaces, forms, when combined with arsenic, a very fusible alloy; and an alloy of certain proportions of lead, tin and bismuth is fusible at 212°, a temperature several degrees below the melting point of its most fusible constituent. 4. Alloys are generally more oxydizable than their constituents taken singly; a property which is, perhaps, partly referable to the formation of an electrical combination.—From early times, the baser metals have been used to alloy gold and silver coins, to prevent loss by wear. In England, the legal proportion of base metal for gold coin is 1 part in 12, and for silver coin 3 parts in 40. In France, the legal proportions of the different coins are as follows: silver coin, 9 parts silver, 1 copper; copper money, 4 parts copper, 1 silver; gold coin, 9 parts gold, 1 copper. For silver plate, the French proportions are 9½ parts silver, ½ copper; for trinkets, 8 parts silver, 2 copper. For gold plate, they have three different standards; 92 parts gold, 8 copper; also, 84 gold, 16 copper, and 75 gold, 25 copper. Gold and silver are alloyed partly that they may wear better, partly to diminish the price of articles made of them.

ALLSPICE, or **PIMENTO**, is the dried berry of a West Indian species of myrtle (*myrtus pimenta*), which grows to the height of 20 feet and upwards, and has somewhat oval leaves, about 4 inches long,

of a deep shining, green color, and numerous branches of white flowers, each with 4 small petals. In the whole vegetable creation there is scarcely any tree more beautiful or more fragrant than a young pimento-tree about the month of July. Branched on all sides, richly clad with deep-green leaves, which are relieved by an exuberance of white and richly aromatic flowers, it attracts the notice of all who approach it. Pimento-trees grow spontaneously, and in great abundance, in many parts of Jamaica; but they cannot be propagated without great difficulty. The usual method of making a new pimento walk, or plantation, is to appropriate for this purpose a piece of woody ground in the neighborhood of an already existing walk, or in a part of the country where the scattered trees are found in a native state. The other trees are cut down; and, in a year or two, young pimento plants are found to spring up in all parts, supposed to have been produced from berries dropped there by birds, which eagerly devour them. About the month of September, and not long after the blossoms have fallen, the berries are in a fit state to be gathered. At this time, though not quite ripe, they are full grown, and about the size of pepper-corns. They are gathered by the hand; and one laborer on a tree will strip them off so quickly, as to employ three below in picking them up; and an industrious picker will fill a bag of 70 pounds' weight in a day. The berries are then spread on a terrace, in the sun, to be dried, but this is an operation which requires great care, from the necessity of keeping them entirely free from moisture. By the drying they lose their green color, and become of a reddish-brown; the process is known to be completed by their change of color, and by the rattling of the seeds within the berries. They are then packed into bags or hogsheads for the market. When the berries are quite ripe, they are of a dark-purple color, and filled with a sweet pulp. Pimento is thought to resemble, in flavor, a mixture of cinnamon, nutmegs and cloves, whence it has obtained the name of *all-spice*. It is much employed in cookery, and is chiefly used in whole grains. It is also employed in medicine, as an agreeable aromatic, and forms the basis of a distilled water, a spirit, and an essential oil. The leaves of the pimento-trees yield, in distillation, an odoriferous oil, which is not unfrequently used, in medical preparations, instead of the oil of cloves.

ALLUM. (See *Alum*.)

ALLUVION (from the Latin *alluvio*, or *aduvio*, rising or swelling of a river, flood, deluge) now signifies a gradual increase of land along the sea-shore or the banks of large rivers, or at their mouths. Great alterations in the limits of countries are produced by A.; e. g. New Orleans and Messalonghi stand on land formed by A. Holland, too, constantly experiences the effects of A. Whole islands are often formed by this cause. In most of the countries on the European continent, the sovereigns have declared themselves owners of all alluvial formations. In Germany, A., which is there called by the much more proper name *Anlündung*, takes place constantly on the coast of the North sea, owing, probably, to the great extent of flats along the shore, on which every tide deposits some mud. This alluvial land is at first without vegetation; then the *salsicornia maritima* appears, which affords a rich salad. Next follows *poa maritima*, and, on very rich A., *aster tripoleum*,—a plant from 1 to 6 feet high. In this state, the A. receives the name of *Vorland*, and geese begin to resort to it. Afterwards it is diked, and used as pasture for sheep, horses and cattle. It is supposed that this kind of land will increase much, in consequence of the many flats along the sea-shore of Germany.

ALMA. The Latin word *almus* belongs to those words which cannot be rendered precisely in other languages, and of which every idiom possesses some. It means *cherishing, nourishing, fostering, bountiful, dear*. This epithet, therefore, was applied to gods, men, qualities and things—*Alma Ceres, A. Venus, A. lux, A. parens*, &c. In modern times, it is particularly used in Italy, *alma città*, for Rome, and in England, *alma mater*, for Oxford, Cambridge, &c., by those who have received their education at these universities. This custom has been transplanted into the U. States. Sometimes A. is used as the Christian name for individuals of the female sex.

ALMAGEST; a celebrated book, composed by Ptolemy; being a collection of the observations and problems of the ancients relating to geometry and astronomy. The original Greek name was *συντάξις μεγάλη* or *μεγίστη*, i. e. *greatest compilation*. The Arabians, at the time when science flourished among them, translated it, about 827, and added their article *al* to the word *megiste*; thus the word *almagest* originated. (See *Ptolemy*.) In 1230, the emperor Frederic II caused this work

to be translated from the Arabic into Latin.

ALMAGRO, Diego; a Spaniard of low birth, one of the adventurers who accompanied Francis Pizarro. He showed himself brave, profligate and cruel. In 1525, he took Cusco, the ancient capital of the incas, by storm, when he exhibited the greatest barbarity towards the unfortunate Atahualpa, or *Atabalipa*, as he is sometimes called, the last monarch of the race of Manco Capac, and put him to a horrid death: Quarrelling with Pizarro about the division of their spoil and power, a schism ensued; and, both factions taking arms, Almagro was defeated, made a prisoner by his rival, and strangled in 1538, at the age, it is said, of 75. His son, however, succeeded in avenging him: the friends of his father, rallying round him, assassinated Pizarro in his turn, after an obstinate resistance, in his own palace, July 26, 1541. This outrage excited the attention of de Castro, viceroy of Peru; and young Almagro, falling into his power, was, with a considerable number of his party, executed by his orders in the following year. (See *Pizarro*.)

ALMAMON, or ABDALLAH, caliph of Bagdad, was the son of Haroun al Raschid, and succeeded his brother, Al Amin, in 813. He was a great patron of learning, and founded a celebrated academy at Bagdad. He died in 833.

ALMANAC; a table or calendar, in which are set down the revolutions of the seasons, the rising and setting of the sun, the phases of the moon, the most remarkable conjunctions, positions and phenomena of the heavenly bodies, for every month and day of the year; also the several fasts and feasts to be observed in the church and state, &c. The history of A., and even the etymology of the word, are involved in considerable obscurity. By some, it is derived from the Arabic *al manach*, to count. Verstegan, who has written on the antiquities of Great Britain under the title of *Restitution of decayed Intelligence concerning Britaine*, makes the word of German origin, *almonat*, and says that the Saxons were in the habit of carving the annual courses of the moon upon a square piece of wood, which they called *almonaught*. The modern almanac answers to the *fasti* of the ancient Romans. There are several very splendid English almanacs of the 14th century existing in MS., particularly in the British museum. A very curious specimen is in the library of Corpus Christi college, Cambridge. Almanacs became generally used

in Europe within a short time after the invention of printing; and they were very early remarkable, as some are now in England, for the mixture of truth and falsehood which they contained. In 1579, their effects in France were found so mischievous, from the pretended prophecies which they published, that an edict was promulgated by Henry III, forbidding any predictions to be inserted in them relating to civil affairs, whether those of the state or of private persons. No such law was ever enacted in England. It is singular, that the earliest English almanacs were printed in Holland, on small folio sheets; and these have occasionally been preserved, from having been pasted within the covers of old books. In the reign of James I, letters patent were granted to the two universities and the Stationers' Company for an exclusive right of printing almanacs. These, in 1775, were declared to be illegal. During the civil wars of Charles I, and thence onward to our own times, English almanacs became conspicuous for the unblushing boldness of their astrological predictions, and their determined perpetuation of popular errors. At the present day, the almanacs of the continental states are generally free from misleading matters of this nature; and the almanacs most similar to some of those extensively circulated amongst the English are produced in Persia. A modern Persian almanac is thus described in the *Encyclopaedia Metropolitana*: "The first page contains a list of fortunate days for certain purposes; as, for example, to buy, to sell, to take medicine, to marry, &c.; then follow predictions of events, as earthquakes, storms, political affairs, &c., after the manner of Moore's Almanac, except being apparently more concise." This resemblance between the productions of a highly-cultivated nation, and one which is noted for its general ignorance, is a remarkable instance of the permanency of vulgar errors. The first almanac at Constantinople is said to have been printed in 1716, under the direction of Abdonaham. Regiomontanus was the first person in Europe, who prepared almanacs in their present form with the exception of their predictions, which were, in all probability, introduced into Europe from the Persians.—Some of the almanacs in the U. States still contain predictions respecting the weather. There is, perhaps, no class of books, which bear so obviously the stamp of the age, and of the spirit of different countries, as alman-

nacs. At present, they become every year more full of statistical matter. Once they were almost entirely filled with subjects of a religious character. At another time they overflowed with astrological calculations and predictions. In the time of Napoleon, an almanac was published in France, in which, to every day, an achievement of the emperor, or something else relating to him, was added. Almanacs, in the petty principalities of Germany, exhibit the endless genealogical tables of the princes. Some almanacs in modern Greek, printed at Venice, where, formerly, all books in this language were published, we found full of astrological superstition, and matters relating to the Greek church. One of the most curious almanacs which we have seen is an Italian one for 1822, exhibiting, in a striking manner, the Italian vivacity. To the 30th of July is added, *Sudano ancora le ossa!* to the 11th of August, *Oh! che noja!* to July 12, *Cosceno le braccia!* to January 2, *Stivali e Ombrello!* In Germany, *almanach* is the name given to annuals like those which appear in England, and the U. States of America, under the names of *Souvenir*, *Forget me not*, &c. In France, a work appears annually under the title of *Almanach des Gourmands*, which is conducted with much spirit, and is in high repute among epicures.

ALMANAC, Nautical. An important work of this kind is published in England annually, but two or three years in advance, bearing the name of *Nautical Almanac*, in which (besides most things essential to general use, that are to be found in other almanacs) are contained many interesting particulars; more especially, the distances of the moon from the sun, and from certain fixed stars, for every three hours of apparent time, adapted to the meridian of the royal observatory, Greenwich. By comparing these with the distances carefully observed at sea, the mariner may, with comparative ease and certainty, infer his longitude to a degree of accuracy unattainable in any other way, and sufficient for most nautical purposes. This almanac was commenced, in 1767, by Dr. Maskelyne, astronomer royal, and has been continued ever since. During 48 years, Dr. Maskelyne devoted the most sedulous attention to it, and it was distinguished for accuracy. Since his death, it has not been so well conducted, and the board of longitude, under whose auspices it was published, has been lately dissolved. The French *Connaissance des Temps* is published with the

same views as the English *Nautical Almanac*, and nearly on the same plan. It commenced in 1698, and has been, in one or two instances, discontinued for short intervals. For many years, however, it has been published with great regularity, and in a manner highly creditable to the *bureau de longitude*. The most valuable of the nautical almanacs now existing, is that published at Berlin, under the superintendence of professor Encke, who has, within a short time past, taken charge of it. It is called *Astronomisches Jahrbuch*, and is the same which was conducted for 50 years by professor Bode, with great credit to himself. It is distinguished for completeness and accuracy.

ALME, or ALMA; girls in Hindostan and Egypt, whose profession is to tell stories, dance, sing, play, and appear as *improvisatrici*. The latter accomplishment is not of very difficult acquisition, as the extempore poetry of the East deals much in repetition, and is little constrained by rule. These arts are taught to female slaves, with a view to enhance their price in the market. The art of telling stories, of which the Asiatics are so fond, is undoubtedly carried to much greater perfection in the East, than with us. The Almes, in their dances, imitate the occurrences and actions of life, and often overstep the bounds of decency. Their singing, like Asiatic singing in general, is extremely poor; but in their dances, they show the greatest skill. They often amuse rich people at dinner. There are also Almes for the lower classes.

ALMEIDA, Francisco and Lorenzo; father and son. Francisco was the first viceroy of India, in 1505. After ravaging the coast of Africa in the course of his expedition, he subjected to the Portuguese dominion Quiloa, Onor, Cananor, with other petty states, and, in a desperate struggle, carried by storm and burned the strong fortress of Panama, though defended by a resolute garrison of 4000 men, while his own force scarcely exceeded 700. His son, who accompanied him, being now detached on a separate expedition, subdued the island of Ceylon, carried off 250,000 lbs. weight of cinnamon as the first fruits of his success, and imposed on the country an annual tribute to the same amount. In a subsequent expedition against the combined fleets of the Arabians and Egyptians, he was slain. His father revenged his son in a bloody battle at Dabul. He then resigned his command to the famous Albuquerque,

and sailed for Portugal, but was killed on the African coast, near the cape of Good Hope.—A Portuguese bishop, a Jesuit, member of the same family, called *Apolinarius*, suffered martyrdom in Ethiopia, whither he went as a missionary, in 1568.

ALMEIDA, one of the strongest fortresses in Portugal, is situated in the province of Beira, near the Spanish border, on the Coa, and contains 2750 inhabitants. In 1762, it was taken by the Spaniards, after great loss, but was restored at the peace. When Ney, 24th July, 1810, attempted to pass over the Coa into Portugal, the English defended the fortress of A. against marshal Massena, till 27th August, when they were obliged to capitulate. In his retreat from Portugal, March 1811, the evacuation of A. cost marshal Massena a bloody battle of two days with Wellington, the 3d and 4th of May, near Fuentes d'Onoro, when the French commander, general Brenier, blew up the fortress on the night of the 11th, and made his way through the midst of the besiegers. The English have restored the works.

ALMENE; a weight of 2 pounds, used to weigh saffron in several parts of the East Indies.

ALMOHEDES; the name of an African dynasty which succeeded that of the Almoravides, in Barbary, in the commencement of the 12th century.

ALMONER, in its primitive sense, denoted an officer of any religious establishment, to whom belonged the distribution of alms. By the ancient canons, all monasteries were to spend at least a tenth part of their income in alms,—a rule which is still followed by several convents. Every bishop, also, was required to keep an almoner. The great almoner (*grand aumonier*) of France was the highest ecclesiastical dignitary in that kingdom before the revolution. Napoleon restored this office, and it has been kept up by the Bourbons, but we do not know its rank at present. To the almoner belonged the superintendence of all hospitals and houses of charity. The king received the sacrament from him, and he said mass at all grand solemnities. He still officiates at the performance of the mass called *Veni, Spiritus*, before the chamber of deputies. The lord almoner, or lord high almoner of England, is an ecclesiastical officer, generally a bishop, who formerly received all deodands and the goods of every *felo de se*, which he was to distribute among the poor. He had, also, the power of giving the first dish from the king's table to whatever poor person he pleased.

The emperors of Germany, too, and most of the European monarchs, had their almoners. The almoner of the pope is one of the highest officers of his state.—The name *almoner* has been given, by some writers, to the chaplains of ships, regiments, &c.

ALMOND. The common or sweet almond is a soft and pleasantly-flavored kernel, contained in a nut, which is of flattish shape, and has a tender shell, with numerous small holes on the outside. The almond-tree (*amygdalus communis*) is usually 12 or 14 feet high. Its beautiful pink flowers, of five petals, grow in pairs, and appear very early in spring. The leaves are oval, pointed, and delicately serrated at the edges. Its flowers are remarkably beautiful, and form a great ornament of the English shrubberies, particularly as they appear in March and April,—a season when few other parts of the vegetable creation have recovered from their wintry state. Though known to the ancients from the most remote period of antiquity, the almond-tree has been cultivated in England only since 1562, and this almost wholly on account of the beautiful appearance of its flowers, since the climate of Great Britain is not sufficiently warm for the fruit to be perfected. The almonds which are consumed in that country and the U. States are imported, sometimes in the shell, and often without, from France, Spain, Italy and the Levant; and they are packed in casks, boxes or bales. The province of Valencia was formerly much celebrated for its almonds, but the cultivation of the trees in that part of Spain has for several years been much neglected. The chief uses of sweet almonds are in confectionary and cooking. They are also eaten with raisins in desserts after dinner; but they should be well chewed, since every piece that is swallowed entire is indigestible. By pressure, they yield a considerable proportion, sometimes nearly half their weight, of oil. Some preparations of almonds are used in medicine, particularly that called *milk of almonds*, which is formed of pounded almonds, loaf-sugar and water, well mixed together. In some parts of the East Indies, it is said that almonds supply the place of small money.—Bitter almonds resemble, in all respects, the sweet almonds, both in the appearance of the kernels themselves, and of the trees which produce them, excepting a slight difference in the size of the flowers and fruit. Like the sweet almonds, they yield a large portion of oil. This has no bitter-

ness, but the substance that remains after the pressure is intensely bitter. If these almonds be eaten freely, they occasion sickness and vomiting; and, to many quadrupeds and birds, they are fatal poison. There was formerly a notion, but it is quite erroneous, that the eating of them would prevent the intoxicating effects of wine. They are frequently used instead of apricot kernels in ratifia, and sometimes are employed in making a counterfeit cherry-brandy. The oil and emulsions of bitter almonds are used in medicine, and a powder and paste for washing the hands is made both from them and from sweet almonds. By confectioners, they are much used to give flavor to biscuits and other articles. The substance which gives their peculiar flavor to bitter almonds, and to the kernels of peaches, apricots, &c., as also to the leaves of all the species of cherry and peach, is the prussic acid, so well known as a powerful medicine and poison. It is this which renders a large draught of noyau, or other cordial of a similar kind, so often injurious, or even fatal. The Prussian medical police, therefore, which is remarkably vigilant, is in the habit of examining liquors of this sort exposed for sale.—For a further account of this substance, see *Cherry Laurel* and *Prussic Acid*.

ALNUS, in botany. (See *Alder*.)

ALOADIN; prince of the Assassins, or Arsacides; commonly called the *Old Man of the Mountains*. He was the sheik of a Syrian tribe professing the Mohammedan religion, but blindly devoted to the will of their chief, with whose temporal superiority was also mingled a sort of ecclesiastical character. Uniting, as it were, in his own person the pretensions of prince and prophet, the slightest of his commands is said to have been always executed, though at the expense of certain loss of life to the emissary. Many fabulous stories are related of this prince, from whose followers the word *assassin* has its derivation.

ALOES are an extensive tribe of plants, some of which are not more than a few inches, whilst others are 30 feet and upwards, in height. All the leaves are fleshy, thick, and more or less spinous at the edges, or extremity. These plants, which are chiefly inhabitants of hot climates, have flowers of a single petal, the mouth expanded, the base nectariferous, and the filaments of the stamens inserted into the receptacle. Some of the larger kinds of aloes are of great impor-

tance to the inhabitants of countries in which they grow. Beset as the leaves are with strong spines, they form an impenetrable fence. The Negroes of the western coast of Africa make ropes and weave nets of the fibrous parts of these leaves. The Hottentots hollow out the stems of one of the kinds into quivers for their arrows. In Jamaica, there is a species of aloes, which supplies the inhabitants with bow-strings, fishing-lines, and materials from which they are able to weave stockings and hammocks. An aloes which grows in the kingdom of Mexico is applied by the inhabitants to almost every purpose of life. It serves to make hedges for enclosures; its trunk supplies beams for the roofs of houses, and its leaves are used instead of tiles. From this plant they make their thread, needles, and various articles of clothing and cordage; whilst from its juices they manufacture wine, sugar and vinegar. Some parts of it they eat, and others they apply in medicine. The juice of aloes was formerly used in Eastern countries, in embalming, to preserve dead bodies from putrefaction; and, as the resinous part of this juice is not soluble in water, it is sometimes adopted, in hot climates, as a preservative to ships' bottoms against the attacks of marine worms. One ounce of it, mixed with turpentine, tallow and white lead, is considered sufficient for covering about two superficial feet of plank; and about 12 pounds as sufficient for a vessel of 50 tons' burthen. In proof of the efficacy of this method, two planks of equal thickness, and cut from the same tree, were placed under water, one of them in its natural state, and the other smeared with this composition. They were suffered to continue in the water 8 months, and when, at the end of that time, they were taken out, the former was perforated in every part, and in a state of absolute decay, whilst the latter was as perfect as at first. In the East Indies, the juice of these plants is used as a varnish to preserve wood from the attacks of destructive insects; and skins, and even living animals, are sometimes smeared with it for the same purpose. There is a tract of mountains about 50 miles north of the cape of Good Hope, which is wholly covered with aloes. Among the Mohammedans, and particularly in Egypt, the aloes is a kind of symbolic plant; it is dedicated to the offices of religion, and pilgrims, on their return from Mecca, suspend it over their doors, to show that they have performed that holy journey. The

inspissated juice of several species of aloes is used in medicine, under the name of *aloes*. The medicinal properties of aloes have been long known and established, and their extensive application in medicine is, perhaps, the best proof that can be adduced of their utility. In the arts, aloes are in several respects useful. Particularly, a beautiful violet color is afforded by the leaves of the Socotrine aloe, which does not require the aid of any mordant to fix it; the same also is capable of being formed into a fine transparent color for painting in miniature.

ALOE, the great or American (*agave Americana*), is a large plant, the leaves of which are thick, fleshy and spinous at the edge, and the stem branched, and of great height. The flowers have the tube of the corolla narrowed in the middle, the stamens longer than the corolla, and the style longer than the stamens. This magnificent native of North America is by no means an uncommon plant in English gardens, but is seldom seen there in flower. There is, indeed, a notion, but an erroneous one, that the American aloe does not bloom until it is 100 years old. The fact is, that the time of flowering depends almost wholly on the rapidity of its growth. In hot countries, it will flower in a few years; but in colder climates, the growth being slower, it is necessarily longer in arriving at maturity. The stem, which bears the blossoms, rises from the centre of the leaves, and, when the plant is in a vigorous state, it frequently exceeds the height of 20 feet. An American aloe, in the garden of the king of Prussia, was 40 feet high. Branches issue from every side, and in such a manner as to form a kind of pyramid, composed of greenish-yellow flowers, which stand erect, and are seen in thick clusters at every joint. When in full flower, its appearance is extremely splendid; and, if the season be favorable, and the plant be sheltered from the cold in autumn, a succession of blossoms will sometimes be produced for near three months. In the warmer parts of Europe, the American aloe is cultivated as an object of considerable utility. They are frequently set out in rows, as fences for enclosures, particularly in Spain, Portugal and Italy. In Algarvia, the leaves are employed for scouring pewter, kitchen utensils and floors, and, being cut into slices, are used for the feeding of cattle. The juice of these leaves is made into cakes, which are used for washing, and will make lather with salt-water as well as with fresh.

The fibres of the leaves, when properly prepared, may be separated into threads, which are useful in various ways. This is sometimes done by bruising and steeping them in water, and afterwards beating them. The process in some parts of Portugal is, after plucking the largest and best leaves, to place them on a square board, which a person presses obliquely between his breast and the ground, and then scrapes with a square iron bar, held in both hands. By this operation, all the juices are pressed out, and only the fibres and some of the membranous parts of the leaves remain, which are easily detached. The fibres are employed for all the purposes to which thread can be applied; but they are neither strong nor durable, and, if exposed to moisture, soon decay.

ALOIDES (so called from their supposed father, Aloëus). Otus and Ephialtes, sons of Iphimedia and Neptune, were enormous giants. They attempted to storm heaven with the other giants, but were killed by Apollo. As a punishment, they were bound to a stake in Tartarus, and gnawed by snakes, while an owl, on the top of the stake, disturbed them with its cries. (See *Giants*.) This fable, which is also differently related, originated with the Boeotians, who maintain that the Aloides introduced the worship of the Muses.

ALPHA and **OMEGA**, the first and last letters of the Greek alphabet, in the Holy Scriptures, signify the *beginning* and the *end*, or the *first* and the *last*; i. e. before and after all things. These two letters are, therefore, used as a symbol of the Divine Being. They were also formerly the symbol of Christianity, and engraved accordingly on the tombs of the ancient Christians, to distinguish them from those of idolaters.

ALPHABET (from *ἄλφα* and *βῆτα*, the two first letters of the Greek alphabet); the ordinary series of the letters or syllables (in syllabic alphabets) of a language. (For the hypotheses respecting their origin, and the relation between the different alphabets, and the different systems on which they are based, see the article *Writing, Art of*.)—The number of letters and their meaning varies in the different tongues very much. The English alphabet (including *j* and *v*) contains 26 letters; the French, 23; the Italian, 20; the Spanish, 27; the German, 26, or 24, if some compound letters are not reckoned; the Dutch, 26; the Bohemian, or that of the Czechian Slavonic dialect, 42; the Russian, 41; the Ethiopic, Abyssinian or Tar

tarian, 202, as has been asserted, but this subject needs further investigation; the Turkish, 33; the Georgian, 36; the Bengalese, 21; the Baramese, 19; the Coptic, 32; the Persic, 32; the Arabic, 28; the Armenian, 38; the Sanscrit, 50; the Japanese, 50; the Hebrew, Chaldee, Syriac and Samaritan, 22 each; the ancient and modern Greek, 24; the Latin, 22; the Cherokee, 82 syllables. Almost all alphabets begin with *A*. (See article *A*.)—For further information, see the articles on the different languages and letters.

ALPHEUS; one of the largest rivers of Greece, which rises near the source of the Eurotas, in Arcadia, flows by Olympia, and falls into the Ionian sea.—In mythology, a son of Oceanus and his sister Thetis. When a river-god, he fell in love with Diana, who, in order to escape him, disfigured with mire her own face, and the faces of her nymphs. He was enamored of and pursued the nymph Arethusa, but Diana concealed her in a cloud, and changed her into a fountain. Upon this, Alpheus resumed his own form of a river, and mingled his waters with hers. This fable probably arose from the circumstance, that the river Alpheus, at a certain place, is lost in the earth; the fable makes it come to light again in Sicily, where it unites with the fountain Arethusa.

ALPHONSO III, king of Leon and Asturias, called the *Great*, succeeded his father, Ordogno, in 866, at the age of 18 years; according to some, in 862, when 14 years old. After having subdued by force the powerful nobles of his kingdom, who saw with jealousy the royal dignity remain hereditary in a family, he turned his arms against his foreign enemies, and distinguished his reign by more than 30 campaigns, and numerous victories obtained over the Moors. He crossed the Duero, overthrew the walls of Coimbra, passed the Tajo into Estremadura, added to his dominions a part of Portugal and Old Castile, and peopled Burgos anew. But all these successes did not conciliate his subjects, and he had the grief of seeing his own son, don Garcia, at the head of the malcontents, endeavoring to tear the crown from his head. A. defeated the rebels, took his son prisoner, and kept him in close confinement at the castle of Gauson. The queen, donna Ximena, then formed a dangerous conspiracy in Garcia's favor, and armed both her other sons against the king. A bloody war desolated the kingdom, until A., defeated by his own son, abdicated the crown, and placed it on don Garcia's

head. He afterwards commanded an army, as the general of his son, against the Moors, conquered them, and returned enriched with booty. After this expedition, he died at Zamora, 912, 64 years old.

ALPHONSO X, king of Leon and Castile, surnamed the *Astronomer* or the *Philosopher*, succeeded his father, Ferdinand the Holy, in 1252. His love of the sciences and of law, and his surname of *Sabio* (the wise) gave his subjects hopes of a happy reign; but the event did not answer their expectations. A. was neither loved by his family, his subjects, nor his neighbors; but his learning and eloquence had given him such a reputation in Europe, that many German princes favored his claim to the imperial throne. Instead of employing himself in expelling the Moors, and humbling his own nobility, he exhausted the strength of his kingdom by endeavoring to secure his election to the imperial throne (1257). But it was vain for him to aspire to this dignity in opposition to Rodolph of Hapsburg; and pope Gregory X not only refused to acknowledge him as emperor, but even to allow his right to Suabia, which he claimed through his mother, Beatrice, daughter of Philip I, archduke of Suabia. In the mean time, his throne was endangered at home by the conspiracies of the nobles and the attacks of the Moors. He finally conquered them, in a bloody battle, in 1263, took from them Xeres, Medina-Sidonia, San-Lucar and a part of Algarvia, and united Murcia with Castile. But these victories were interrupted by new troubles, excited by his son, the infante Philip, which he succeeded in quieting only after 3 years' war. But the mildness with which he treated the rebels was considered only a proof of weakness, and, when he at last determined to act with rigor against his own family, his son Sancho again rebelled, and, in 1282, deprived him of his crown. A. sought support in an alliance with the Moors, and died in 1284, after unsuccessful efforts to regain the throne. A. was the most learned prince of his age, and has gained a lasting fame by his collection of laws, called *Las Partidas*. There is in this book a very remarkable sentiment, considering the age in which it was produced: "The despot roots up the tree; the wise master only prunes off the superfluities." Europe is indebted to A. for the astronomical tables which go under his name. Under his patronage, the first general history of Spain was composed, in the Castilian

tongue, and the Bible translated. He contributed much to the revival of science, and, with this view, strove to increase the privileges and the professorships of the university of Salamanca; but without firmness and prudence, learning is useless to a ruler.

Alps; the highest ridge of mountains in Europe, lying between 5° and 17° E. lon., and 45° and 48° N. lat.; consequently extending through 11°—12° of lon., and 2°—4° lat., or 120,000 square miles. Their branches connect them with almost all the other mountains of Europe. The highest points are in Savoy and Switzerland, and thence branches diverge in all directions. The principal divisions are the following:—1. The Maritime Alps, between Nice and Provence, extending from mount Viso to the Mediterranean, and connecting the Apennines, in Italy, with the Alps, in Provence. Their principal summits are the mount Ardenne, di Tenda and Camelon.—2. The Cottian Alps, from mount Viso, by mount Genevre, to mount Cenis. They separate Piedmont and Dauphiné. The Pelvoux de Val-Louis is 13,836 feet high, the Olan, 11,206, and the Viso, 13,820 feet.—3. The Gray or Grecian Alps, from mount Cenis to the Col de bon Homme, traversing the department of Isère. They separate Piedmont from Savoy, but do not equal the height of the Cottian Alps. Their highest summit, mount Cenis, is 11,460 feet high.—4. The Pennine Alps, from Col de bon Homme, by mount Blanc and the Great St. Bernard, to mount Rosa. They separate Piedmont from Savoy and the Valais, and contain the highest summits and most dreadful glaciers of the whole ridge. Mount Blanc, the highest mountain of Europe, which was first ascended in the last part of the 18th century, rises 15,766 feet (according to de Luc, 2,391½ French toises, or 15,304 English feet); mount Rosa, 15,380; the Great St. Bernard, 10,780; mount Velan, 10,627; and Simplon, 6,574 feet.—5. The Lepontine or Helvetian Alps, which cover Western Switzerland, extending from mount Rosa, on both sides of the Rhone, through the Valais, by St. Gothard, to the Muschelhorn and Bernardino in the Grisons, and dividing Lombardy from Switzerland. It is the most visited of all the chains of the Alps, and is remarkable for its sublime scenery, and as giving rise to several of the largest rivers of Europe. Its most elevated summits are the Finsteraarhorn, 14,094; the Jungfrau, 13,720; the Schreckhorn, 14,062; the Furka, 14,040;

the Grimsel, 9,704; and the St. Gothard, 9,964 feet high. The Furten mountain and the Jura run out from this chain.—6. The Rhoetan Alps, from Bernardino, through the Grisons and Tyrol, to the Dreiherrnspeitz, on the borders of Salzburg and Carinthia, and southwards to the Pellegrino. They separate Lombardy from Germany and the Grisons, and are connected, by means of the Arlberg, with the Rauhe-Alb or Suabian Alps, and through them with the principal mountains of Germany. The Ortoles rises 12,859 feet; the Wetterhorn, 12,176; the Dœdi, 11,735; the Riegleberg, 9,775; and the Pilates, 7,496 feet.—7. The Noric Alps, which run from the Dreiherrnspeitz, through all Carinthia, Salzburg, Austria and Styria, and lose themselves in the plains of Cœdenburg. The Cetian mountains unite them with the Bohemian forest and the Hungarian mountains. They have very high summits, above which projects the Great Glockner, 12,982 feet high.—8. The Carnic Alps, from Pellegrino, between the Save and the Drave, to the Terglou. One of their highest peaks, the Obis, is 7,038 feet high.—9. The Julian Alps reach from the Terglou, between the right bank of the Save, the Kulpa and the Adriatic, to the rock called *Kleck*, near Segna, and separate Lombardy from Illyria. The Terglou rises to the height of 9,906 feet; the Loibl, 4,266. To these belong the Karst, the Croatian and Sclavonian mountains.—10. The Dinaric Alps, from the Kleck to the vicinity of Sophia, where they unite with the Balkan, and form, by different spurs, the Hellenic and Rumanian mountains.—The population of all the different branches of the Alps amounts to at least 7,000,000, of which the greater part is of German origin; the rest are Italians and Sclavonians. More than 2,000,000 are herdsmen, who live by breeding cattle. The declivities of the Noric, Carnic and Rhoetan Alps are rich in metals, particularly in iron, copper, lead, and many kinds of semi-metals. The bouquetin grazes on their summits. It is now, however, become very rare. Half-way up their sides are found chamois, marmots, dormice, eagles and vultures. Here also are found the beautiful Alpine flowers, which disappear towards the summits. (See *Alps, Roads over the*.)—As to the geological structure of the Alps, it is, in general, very regular. To the north and south runs a steep and almost perpendicular wall; a chain of sand-stone hills extends along it, reaching, however, but to an unimportant

height, and not belonging, in a geognostical respect, to the proper Alpine formation. This mass of steep mountains is formed by a central chain and two ridges of lime-rocks, which extend from S. S. W. to E. N. E., and near Turin and Geneva cease to accompany the central ridge. This consists of the oldest mountain formations. Gneiss and granite occupy the whole middle tract of the Alps, and form, in particular, the body of the upper range, which is covered with an infinite number of peaks and glaciers, and can be crossed with tolerable convenience only at a few points. This range forms the division of the Alpine streams, and here are situated the highest of the above-mentioned mountains. This formation is particularly rich in beautiful minerals, of which lime-stone, gneiss, mica slate and granite are the chief. To this succeeds, as well upon the northern as upon the southern side, the slate formation, which rises also to a considerable height, without reaching, however, the highest points. It consists principally of table-slate, whet-slate, silicious slate, graywacke, and contains, also, a kind of lime-stone. In it there are found, also, layers of ore, particularly the famous masses of sparry iron in Styria. The porphyry formation appears only on the south side of the Alps, particularly in Tyrol, where it forms a wide, low plateau. The latest formation of the central chain is the elder or red sand-stone, consisting of a coarse stone, often a conglomerate, or of a finer red or gray stone. The ridges of lime-stone Alps rise northwards and southwards, at the foot of the central chain, steep and highly picturesque, constituted by Alpine or elder Flötz lime-stone, marl, plaster, clay, fossil salt, trap, porphyry, also amygdaloid and conglomerate. It is distinguished by beds of calamine, galena and clay iron-stone. On the lime-stone chain lean the younger formations of the Jura (q. v.), of the Suabian Alps, &c.—(See the article *Alps*, *Suabian*; also *Ebel, über den Bau der Erde in dem Alpengebirge*, On the Structure of the Alps, 2 vols., Zurich, 1808.)

ALPS, Roads over. One of the most lasting monuments of the power and policy of Napoleon are the artificial mountain-roads, which connect Savoy with France, and Valais with Italy. The first leads over mount Cenis (a mountain 5,879 feet high) by Lanslebourg to Susa, from Savoy to Piedmont. Formerly, travellers were obliged to pass over the steepest height on mules or in chairs; but, in

1805, Napoleon ordered a winding road for carriages to be laid out here, 30 miles long and 18 feet wide, which is passable even in winter. In 1815, 16,000 carriages and 34,900 mules passed this road.—The second leads over the Simplon (Sempione), which is 10,327 feet in height, from Valais to Piedmont, from the village Glüs to Domo d'Ossola. This road, constructed between 1801 and 1806, is the only one from Switzerland, over the Alps, passable by wheel carriages. It is about 36 miles long, and 25 feet wide throughout, and is nowhere too steep to be passed by the heaviest wagons. It is carried over steep precipices, and through 6 galleries hewn in the rocks. Some of these passages are several hundred paces in length, and are lighted by openings. From them you step into lovely valleys, adorned with cottages, and see above them dark forests of pine, glaciers, and peaks covered with snow shining in the blue sky. Bridges are thrown over tremendous precipices, from one mountain to the other. The Italian side offers a more beautiful spectacle than the Swiss, because the rocks are steeper. The *grande galerie* is 683 feet long, entirely excavated in granite, called the *gallery of Frissinone*, from the rivulet, which forms a splendid cascade near it. The road commences a mile westward from Brieg, and leads over the Saltina-bridge; above the village of Ried, it goes through a beautiful grove of larch-trees, to the first gallery, and then over the Canter-bridge, 80 paces in length, to Persal. Here begin precipices and avalanches, on which account the road has many windings. At the *galerie des glaciers* the growth of trees ceases, and the road rises 1,033 toises above the lago Maggiore, or almost 6,000 feet above the sea. At the top stands a *hospitium* for travellers, a turnpike, and, lower down on the right, the old hospital. Four miles farther on lies the village of Simplon, 4,548 feet above the sea. The road goes along the river Veriola, till near Domo d'Ossola. At Gunt is a tavern; a mile farther, the territory of Valais terminates near a chapel; the first Italian village is S. Marco. Avalanches and masses of earth, brought down by the rain, often damage this road, so that the annual repair requires a considerable expense, which, however, neither the Swiss nor the Sardinian government have, as yet, been willing to take upon themselves. Osterwald has given fine sketches of the picturesque views on the road over the Simplon (q. v.)—A third road leads over mount

Genève (about 6000 feet high), on the frontiers of France and Piedmont. There is a village on the level summit of the mountain, with a monastery, where travellers are received.—The fourth road (*la corniche*) goes from Nice, by Monaco, to Genoa, through the rocky ground at the foot of the Maritime Alps.—Among the other roads over the Alps are to be mentioned, 1, that over Mt. St. Gothard (q. v.), from the canton Uri to the canton Tessino; but, as this is very toilsome, and, in some places, dangerous, particularly near the Devil's bridge, in the Urnerloch, and at the descent to Airolo, in the Val Livino, goods can be transported from Switzerland to Italy only on pack-horses. The road ascends to a height of 8264 feet, and at an elevation of 6367 feet there is a *hospitium* of the Capuchins. 2. The road over the Great St. Bernard (q. v.), from the lake of Geneva to Italy (the nearest of all to Turin and Genoa), is unfit for carriages, and can only be passed on foot and by pack-horses. In order to shorten the way, it has been proposed to make a passage, for the transport of wares, from the Valais to Genoa. 3. The main road from Innsbruck to Italy, over the Brenner, a mountain of Tyrol, 6063 feet in height. At this place the road is about 10 miles long, and ascends to a height of 4367 feet. With this is connected, 4, the new road built by Austria since 1821, the highest in Europe, from Bormio, in Valtellina, over the Braglio and the yoke of Stils, 8400 feet high. 5 and 6. The road from Bellinzona to Coire, over the Bernardin, and that over the Splügen, passable for wheel-carriages since 1823; the former leading to the lake of Lugano, the latter to the lake of Como. The canton Tessino, in 1818, entered into a compact with the government of Lombardy, by which, on condition of being allowed the importation of salt and fruits from Lombardy, it promised to prevent the building of a new road from Bellinzona to Coire, over the Bernardin, and only to keep the old road in its present condition. The validity of this treaty, however, so contrary to the interest of the Grisons and the other cantons, was disputed, and the building was finally commenced. The roads over the yoke of Stils, and that over mount Simplon, are among the greatest productions of human energy and art in modern times.

ALPS, the Suabian. The northern continuation of the Schwarz-wald, or Black Forest, is a regular, calcareous mountain, 70 miles long, and from 9 to 20 broad, on

the southern frontier of Wirtemberg, of which the highest and most barren part is the Rough Alps (*Rauhe Alp*). The highest point is not quite 3000 feet above the level of the sea. In the village of Sirchingen, the eaves of a house shed the rain, on one side, into the Rhine, through the Neckar, and on the other, into the Danube. As the mountain abounds in lime, it is rich in caverns containing stalactites. The higher the quarries of limestone are situated, the finer is the grain of the stone, and the greater the mass of petrifications; among which are particularly to be noticed large specimens of the *cornu ammonis*. These Alps are poor in metals.

ALPUXARAS, los (ancient *montes Soles*); a range of mountains in Granada, about 51 miles in length, from E. to W., and 33 in breadth, from N. to S. They can be seen from Gibraltar, and even from the coast of Africa. Here the descendants of the Moors, Moriscoes (now Christians), live, and cultivate the land extremely well. No part of Spain is so well peopled.

ALSACE (Germ., *Elsaass*; French, *Alsace*); before the French revolution, a province of France, on the Rhine, now constituting the departments of the Lower and the Upper Rhine (the former of which contains 1760 square miles, with 370,660 inhabitants; the latter, 2140 square miles, with 504,600 inhabitants); a fertile country, formerly divided into Lower and Upper Alsace. In ancient times, it was a German duchy, but, in 1268, the line of its dukes becoming extinct, it was parceled out to several members of the German empire. By the peace of Münster, in 1648, the part of A. belonging to Austria and to ten free cities of the empire, was ceded to France. The possessions of the other German states in A. still preserved their connexion with the German empire. By the peace of Ryswick, in 1697, the city of Strasburg, and all the territory occupied by the French troops on the left bank of the Rhine, were ceded to France. Several states of the empire had still important possessions in it, which, at the beginning of the revolution, the first national assembly declared to be a conquest pointed out by nature itself; because, they said, foreign powers could not be allowed to retain possessions within the territory of France without danger; compensation was promised for the losses sustained by the German owners; few of them, however, were willing to accept it, and this affair was one of the chief causes of the war which took place soon after between France and Germany.

By the peace of Paris, Nov. 20, 1815, a part of A., viz. Landau, was again separated from France, and reunited with Germany.—(See *Résumé de l'Histoire d'Alsace*, par M. V., Paris, 1825; and *Nouv. Descript. Histor. et Typogr. des deux Départ. du Rhin*, par J. F. Aufschlager, 1 number, Strasburg, 1825.) The inhabitants of A. continue to speak German. Strasburg is the chief city. The two departments produce wine, copper, iron, hemp, flax, tobacco, madder, &c. Several of the most distinguished liberals in the French chamber have lately been sent from these departments, and, on the whole, they were much attached to the French emperor.

AL SEGNO (*Italian*; to the mark or sign). This expression is usually accompanied with this character, § and signifies that the performer is to return to a similar mark in the composition, and end with the first part of the strain.

AL-SIRAT; the bridge, of breadth less than the thread of a famished spider, over which the Mussulmans must *skate* into paradise, to which it is the only entrance. But this is not the worst; the river beneath being hell itself, into which, as may be expected, the unskilful and tender of foot contrive to tumble, with a *facilis descensus Averni*, not very pleasing in prospect to the next passenger. There is a shorter cut downwards, for the Jews and Christians.—*Lord Byron*.

ALSOB, Richard, a man of letters, born in Middletown, Connecticut, published a number of fugitive pieces in verse and prose, which had considerable success, besides several translations from the Italian and French. The principal one is the *Natural and Civil History of Chili*, from the Italian of the abb. Molina, in 2 vols., 8vo., reprinted in London. In 1815, he prepared the *Narrative of the Captivity and Adventures of J. R. Jewett among the Savages of Nootka Sound*. He died Aug. 20, 1815, in the 57th year of his age.

ALT; a term applied to that part of the great scale of sounds which lies between F above the treble-cliff note, and G in *altissimo*.

ALTAI or ALTAIC MOUNTAINS; a vast chain of mountains in Asia, extending from lon. 68° to 170° E., terminating at East Cape, and forming, for a great distance, the southern boundary of Siberia. Their length is about 5000 miles. They assume different names, and are supposed to be connected with the Uralian chain. A large part of the A. chain is sometimes called the *Kolhyvan mountains*, because

situated in the government of that name. The highest summits are computed at 10,730 feet above the sea.

ALTAR; an elevated place intended for sacrifice. At first, altars were made of earth or ashes, but afterwards, when men began to build temples, they were made of stone or metal, and much adorned. They stood in the eastern part of the edifice, before the statue of the god, but lower. Very different from these are the altars in Christian churches. In these, the altar is not a place of sacrifice, but was, at first, a table at which the love-feast (*agape*) was held. When this was changed into a church ceremony, the altar yet remained a table, placed in the choir of the church, used for the distribution of the Lord's supper, and for various other purposes. Altars of mason-work were, probably, first used among Christians in the reign of Constantine the Great. The regulation of placing them always towards the east originated with Sextus II. Since the time of Gregory VI, Roman Catholic churches frequently contain several altars. The high altar, the most important, is in the chancel of the church, somewhat elevated; the other smaller ones are near the pillars, or the side walls, or in the chapel. In the larger Protestant churches, also, there is usually a great and small altar.

ALTENBURG; a Saxon duchy, which is divided into 2 parts by the principality of Gera. At present, it belongs to the houses of Gotha and Saalfeld. The division belonging to the former house contains about 525 square miles, with 109,557 inhabitants, famous for their attention to agriculture and to the breeding of cattle. It is one of the most beautiful and best cultivated parts of Germany. The division of Saalfeld contains about 212 square miles, with 30,500 inhabitants (according to some, about 170 square miles and 21,400 inhabitants); has 4 cities, 1 market-town, and 100 villages. Each line possesses full sovereignty. The city of A., well built on the Pleisse, contains 1279 houses, 10,100 inhabitants, and, till 1308, was a free city of the empire.

ALTER Ego (*Latin*; the other I); a law term, used particularly in the official style of the kingdom of the Two Sicilies, by which the king gives to a substitute, appointed to manage the affairs of the kingdom, the full exercise of royal power. This happened in Naples after the insurrection of Monteforte, where the present king, when crown-prince, July 6, 1820, was appointed by his father vicar-general

of the kingdom. In France, the phrase used to express this is, *lieutenant-général du royaume*.

ALTITUDE denotes the perpendicular height of the vertex of any plane, or solid body, above the line or plane of its base; thus the altitude of a triangle is measured by a perpendicular let fall from any one of its angles upon the base, or upon the base produced; therefore the same triangle may have different altitudes, accordingly as we assume one side or another for its base. Again, the altitude of a cone or pyramid, whether right or oblique, is measured by a perpendicular let fall from the vertex to the plane of its base. Similar remarks apply to other solids.—In astronomy, altitudes are measured or estimated by the angles subtended between the object and the plane of the horizon; and this altitude may be either *true* or *apparent*. The *apparent* altitude is that which is obtained immediately from observation; and the *true* altitude that which results from correcting the apparent altitude, by making allowance for parallax, refraction, &c. The altitude of a terrestrial object is the height of its vertex above some horizontal plane assumed as a base. The altitude of mountains is measured, generally, from the level of the ocean; that is, the altitude of a mountain is the difference between the mean terrestrial radius, and the distance of the vertex of the mountain from the centre of the earth. If the altitude of a mountain is given without any explanation, the altitude above the ocean is always understood. This altitude can be measured trigonometrically, by barometrical observations, or by actually measuring the level between the base and vertex of an object; and, if very great accuracy is not required, by optical reflection, by the length of shadows, movable staves, the geometrical square, &c.; and, generally, by any method in which the calculation depends upon the similarity of plane rectilinear triangles.

ALTO, or **ALTO TENORE**. *Alto* is the term applied to that part of the great vocal scale which lies between the *mezzo soprano* and the tenor, and which is assigned to the highest natural adult male voice. In scores it always signifies the counter-tenor part.

ALTONA; the largest city of Denmark, after Copenhagen, in the duchy of Holstein; 53° 54' 25" N. lat.; 9° 55' E. lon.; two miles from Hamburg on the Elbe. The city contains upwards of 23,000 inhabitants; among whom are 2400 Ger-

man and Portuguese Jews, under the direction of a rabbin. The remainder are Lutherans, Calvinists, Catholics and Anabaptists. The number of houses is about 2230. There are also 520 habitable cellars. The city is built on the side of a steep hill, which gives it the appearance of an amphitheatre, when viewed from the side of the Elbe. The commerce of A., both inland and foreign, is considerable. The Danish government has conferred many privileges on the city. Here is a board of commerce, a mint, an exchange, a royal bank, and, since 1739, a royal school. In 1713, A. was almost totally burnt by the Swedish general Steenbock. It has been since beautifully rebuilt.

ALTRANSTADT; a town in Saxony, famous for the treaty concluded between Charles XII, king of Sweden, and Augustus, elector of Saxony, Sept. 24, 1706, by which the latter resigned the crown of Poland. After the defeat of Charles, at Pultawa, Augustus, Aug. 8, 1709, declared the peace of Altranstadt void, because his commissioners, von Imhof and Pfingsten, had exceeded their powers in signing the conditions. The former was condemned to be imprisoned for life, the latter to be put to death. Augustus, at the invitation of some Polish nobles, returned to Poland, took possession of the throne, and renewed his alliance with the czar.

ALUM, artificial. Common alum is a triple salt, consisting of sulphuric acid, alumine, potash and water, or of sulphate of alumine and sulphate of potash, united together, with a certain quantity of water of crystallization. It crystallizes in regular octahedrons, which are generally truncated on their edges and solid angles. Alum may also be formed by substituting either soda, ammonia or magnesia for the potash, without at all altering its crystalline form or its taste. It dissolves in 5 parts of water, at 60°, and the solution reddens vegetable blues, indicating the excess of acid which this salt contains. Exposed to heat, it undergoes a watery fusion, and becomes light and spongy, in which condition it possesses slightly corrosive properties, and is used as a caustic, under the name of *alumen exsiccatum*.—The simplest process by which alum is prepared is, perhaps, that adopted at the Solfatara near Naples, which is covered with a white clayey soil, through which sulphureous vapors are constantly emitted. This soil is always hot, and nothing more is requisite than to immerse into it cisterns, and subject the earthy matter to lixiviation; after which, the saline solu-

tion is evaporated by means of the subterranean heat, also, and placed in a situation to cool, when the alum is deposited in crystals. As nothing is added during the process, it is obvious that the alum must exist ready formed in the soil. From the presence of a small portion of iron, the Solfatara alum is not so valuable, for many purposes, as that produced elsewhere; and, accordingly, its use is mostly confined to the Neapolitan states.—The manufacture of alum directly from its component parts has, of late years, furnished a large proportion of this substance found in commerce. The process is conducted in the following manner: Sulphur and nitrate of potash (nitre) are mixed together, in the proportions for forming sulphuric acid, and brought into combustion in large leaden chambers, or rooms lined with a thick coating of plaster. The sulphur is thus acidified, and converted into vapor, and, the floor of the apartment being covered with clay of the purest kind, previously calcined, the acid gradually combines with it, and forms sulphate of alumine, which, after a few days, is dissolved out and considerably reduced by evaporation, when a solution of sulphate of potash (being the residue of the combustion of the nitre and sulphur) is poured in, and the perfect crystals of alum are deposited.*—The importance of alum, in the arts, is very great, and its annual consumption is immense. It is employed to increase the hardness of tallow, to remove greasiness from printers' cushions and blocks in calico manufactories, and to render turbid waters limpid. In dyeing, it is used to cleanse and open the pores on the surface of the substance to be dyed, and, by the attraction of the coloring matter for the alumine it contains, to render it fit for receiving the coloring particles. Wood and paper are dipped into a solution of it to render them less combustible. Paper impregnated with alum is useful in whitening silver, and in silvering brass without heat. It is also largely used in the composition of crayons, in tannery and in medicine.

ALUM, native, is found in most countries, in the state of an efflorescence or mould upon the surface of certain slate clays and lavas, and, in the U. States, in mica-slate rocks; also, in delicate hair-shaped fibres, occupying clefts in a bituminous shale, principally found in Italy. It may always be easily recognised by its sweetish, astringent taste, in which it re-

sembles the artificial alum. It exists only in very limited quantities, and contains too many impurities to be of any practical use.—A native alum has of late been found near the foot of the Andes, in South America, in which soda is substituted for potash.†

ALUM-SLATE; a slaty rock, of different degrees of hardness; color grayish, bluish, or iron-black, and often possessed of a glossy or shining lustre. It is chiefly composed of silex and alumine, with variable proportions of sulphuret of iron (iron pyrites), lime, bitumen and magnesia. It is found abundantly in most European countries, and from it is obtained the largest part of the alum of commerce. As the alum-slate contains only the remote principles of this salt, the process for obtaining it is somewhat complicated. In the first place, it is requisite to acidify the sulphur of the pyrites, and combine it with the alumine. This is effected by roasting the ore in contact with the air, and then lixiviating it; after which, potash is added, and the crystallized alum obtained by evaporation.

ALUM-STONE; a mineral of a grayish or yellowish-white color, fine-grained, and approaching to earthy in its composition, and filled with numerous small cavities. It may be scratched with the knife, and easily reduced to fragments. When strongly heated, it emits a sulphureous gas. It is composed of alumine, 43.92; silex, 24.00; sulphuric acid, 25.00; potash, 3.08; water, 4.00. It is found at Tolfá, in Italy, in secondary rocks, and from it is obtained a very pure alum, by simply subjecting it to roasting and lixiviation.

ALUMINE, or ALUMINA; one of the earths entering most largely into the combination of all rocks, clays and loams. From its forming the plastic principle in clays, it was formerly called *argil*, or the *argillaceous earth*; but since it has been ascertained that it constitutes the base of the salt alum, it is styled *alumine*. Like the other earths, it was regarded as an elementary substance in chemistry, until the researches of sir H. Davy led to the belief that it was a compound of a peculiar metallic base with oxygen.—It exists in the state of a hydrate, or in combination with water, in the Gibbsite, a mineral found in Richmond, Mass., and nearly pure in the corundum gems. The porcelain clays and kaolins contain about half their weight of this earth, to which

* For other modes of manufacturing alum, see *Alum-slate* and *Alum-stone*.

† Am. Lyceum, Nat. Hist. New York, vol. 3, p. 19.

they owe their most valuable properties. Alumine may be obtained pure by adding, in the first place, to a solution of alum in 20 parts of water, a small quantity of a solution of carbonate of soda, to precipitate any iron that may be present, and afterwards a little water of ammonia (*aqua ammoniac*) to the supernatant liquid, separated from its precipitate, which, uniting with the sulphuric acid of the alum, liberates the alumine. On being washed and thoroughly dried, it is of a white color, and without taste or smell. It is soluble in liquid soda and potash, from which it may be separated, unaltered, by the acids. It is infusible, except in the heat of the compound blow-pipe. Alumine is the basis of porcelain pottery, bricks and crucibles. It has a strong affinity for oil and coloring matter, which causes it to be employed, in the state of clays, as a cleansing powder, and, in a state of purity, in the preparation of lakes, in dyeing and calico-printing.—It combines with the acids and forms numerous salts; the most important of which are the sulphate of alumine and potash (see *Alum*), and the acetate of alumine. This salt is formed by digesting strong acetic acid (vinegar) upon the newly-precipitated earth; but, for the use of the manufacturer, by decomposing alum with acetate of lead (sugar of lead), or, more economically, with acetate of lime, a gallon of which, of the specific gravity 1.050, is employed for every 2½ lb. of alum. The sulphate of lime formed falls to the bottom, and the acetate of alumine remains in solution with an excess of alum, which is necessary to prevent its decomposition. It is of extensive use in calico-printing and dyeing, as a mordant, and is employed in the place of alum, to which it is generally preferred.

ALVA, Ferd. Alvarez, of Toledo, duke of, minister of state, and general of the imperial armies, was born in 1508, of one of the most illustrious families of Spain. He was educated under the eyes of his grandfather, Frederic of Toledo, who instructed him in military and political science. He carried arms, when very young, at the battle of Pavia; commanded under Charles V, in Hungary; also at the siege of Tunis, and in the expedition against Algiers. He defended Perpignan against the dauphin, and distinguished himself in Navarre and Catalonia. His cautious character, and his inclination for politics, at first, led men to believe that he had but little military talent; and Charles V himself, whom he advised, in Hungary,

to build a bridge of gold for the Turks, rather than risk a decisive battle, deemed him unqualified for high commands, and intrusted him with important offices rather from personal favor than respect for his ability. His pride was offended at the low estimation in which he was held, and his genius roused to the performance of exploits deserving of a permanent remembrance. His able generalship gained, in 1547, the battle of Mühlberg, against John Frederic, elector of Saxony. The elector was taken prisoner, and the duke, who presided in the council of war, adjudged him to death, and strongly urged the emperor to execute the sentence. In 1555, he was commissioned to attack the French in Italy, and pope Paul IV, the irreconcilable enemy of the emperor. He gained several victories, relieved Milan, advanced to Naples, where the intrigues of the pope had stirred up a rebellion, and confirmed there the Spanish influence. When Charles V resigned the government to his son, Philip II, A. received the supreme command of the army. He conquered the States of the Church, and frustrated the efforts of the French. Philip, however, compelled him to contract an honorable peace with the pope, whom A. wished to humble. Recalled from Italy, he appeared, in 1559, at the French court, in order to marry Elizabeth, the daughter of Henry II, by proxy, for his sovereign; she was, at first, destined for the crown-prince, don Carlos. About this time, the Netherlands revolted, and A. advised the king to suppress the insurrection by severity and force. The king intrusted him with a considerable army and unlimited power, to reduce the rebellious provinces. Scarcely had A. reached Flanders, when he established the council of blood, at the head of which stood his confidant, Juan de Vargas. This tribunal condemned, without discrimination, all whose opinions were suspected, and whose riches excited their avarice. The present and absent, the living and the dead, were subjected to trial, and their property confiscated. Many merchants and mechanics emigrated to England; more than 100,000 men abandoned their country; others resorted to the standard of the proscribed prince of Orange. The cruelty of A. was increased by the defeat of his lieutenant, the duke of AreMBERG, and he caused the counts of Egmont and Horn to be executed on the scaffold. He afterwards defeated the count of Nassau, on the plains of Gemmingen. Soon after, the prince of Orange

advanced with a powerful army. The young Frederic of Toledo sent to his father, asking permission to attack the prince. The duke, who demanded blind obedience from his inferiors, answered, that he pardoned him on account of his inexperience, but bade him beware of pressing him further, for it would cost the life of any one who should venture on a similar message. The prince of Orange was forced to withdraw to Germany. The duke stained his reputation, as a general, by new cruelties; his executioners shed more blood than his soldiers. The pope presented him with a consecrated hat and sword,—a distinction previously conferred only on princes. Holland and Zealand, however, resisted his arms. A fleet, which was fitted out at his command, was annihilated; and he was every where met with insuperable courage. This, and perhaps the fear of losing the favor of the king, induced him to request his recall. Philip willingly granted it, as he perceived that the resistance of the Netherlands was rendered more obstinate by these cruelties, and was desirous of trying milder measures. In Dec. 1573, A. proclaimed an amnesty, resigned the command of the troops to Louis de Requesens, and left the land, in which he had executed 18,000 men, as he himself boasted, and kindled a war, that burned for 68 years, cost Spain 800 millions of dollars, its finest troops, and 7 of its richest provinces in the Low Countries. Duke A. was received with distinction in Madrid, but did not long enjoy his former credit. One of his sons had seduced one of the queen's ladies of honor, under a promise of marriage, and was, for that reason, arrested; his father assisted him to escape, and married him to one of his relations, contrary to the will of the king. A. was banished, in consequence, from the court, to his castle Uzeda. Here he lived 2 years, when the troubles stirred up by don Antonio, prior of Crato, who had been crowned king of Portugal, forced Philip to have recourse to A., as one in whose talents and fidelity he placed great reliance. A. led an army to Portugal, gained two battles in three weeks, drove out don Antonio, and reduced all Portugal, in 1581, to subjection to his sovereign. He made himself master of the treasures of the capital, and permitted his soldiers to plunder the suburbs and surrounding country, with their usual rapacity and cruelty. Philip was displeased at this, and desirous of instituting an investigation into the conduct of his general, who

was, moreover, charged with having applied the wealth of the conquered to his own purposes. But a haughty answer from the duke, and the fear of rebellion, caused him to desist. The duke died, January 21, 1582, aged 74 years. A. had a proud mien, a noble aspect, and a strong frame; he slept little, labored and wrote much. It is said of him, that, during 60 years of warfare against different enemies, he never lost a battle, and was never taken by surprise. But pride, severity and cruelty tarnished his renown.

AMADEISTS. (See *Franciscans*.)

AMADEUS; the name of several counts of Savoy.—A. V, surnamed the *Great*, succeeded to the sovereignty in 1282. He gained distinguished honor in defending Rhodes against the Turks. He died, after a reign of 38 years, in 1323, at Avignon, where he was soliciting pope John II to publish a crusade in favor of Andronicus, emperor of the East, who had married his daughter. He was much loved and honored by all the sovereigns of Europe, and was frequently the mediator in their differences.—A. VIII succeeded his father, A. VII, in 1391, and acquired the titles of the *Pacific* and the *Solomon* of his age. In 1416, Savoy was made a duchy; but, after this elevation, A. retired from his throne and family, into a religious house, at a place called *Ripaille*. In this retreat, he devoted himself to pleasure, so that *faire ripailles* became proverbial to signify a *life of indulgence and exquisite gratification*. Here he aspired to the papacy, and employed large sums of money, at the council of Basil, to secure his election. Accordingly, this council, in 1439, having deposed Eugenius IV, chose A. in his place, under the name of Felix V, though he had never taken holy orders. Eugenius excommunicated him. On the death of his rival, A. was persuaded to abdicate. He died at the age of 69, in 1451.—A. IX, surnamed the *Happy*, on account of his virtue and piety. Being once asked by a courtier whether he kept hounds, he pointed to a great number of poor people seated at tables, eating and drinking, and replied, "These are my hounds, with whom I go in chase of heaven." He died in 1742, aged 37 years.

AMADIS; a name very celebrated in the romances of chivalry.—1. A. of Gaul, called, from the bearings on his shield, the *knight of the lion*, but in the wilderness, *Beltenebros*; a son of king Perion of France, and Eileseña, daughter of king Gavinter of Bretagne.—2. A. of Greece; a

great-grandson of the Gallic A., and son of Lisuarte, and Onoleria, daughter of the emperor of Trebisonde.—3. A. of the Star, a great-grandson of the Grecian A., son of Agesilaus, king of Colchis, who was descended from Alastraxerea, a natural child of the Grecian A., by the queen Zahara of Caucasus. The mother of this 3d A. was Diana, a natural child of Sidonia, queen of Guindaga, by Florisel, the knight of the beautiful shepherdess, a lawful son of the Grecian A.—4. A. of Trebisonde, descended from Roger of Greece, the Much-beloved, a son of Florisel and Hellen, princess of Apollonia. This A. was a great-grandson of Florisel, and son of Polixana and Liscaron, prince of Cathay. The history of this hero, who was nearly the same to Spain as Charlemagne with his 12 peers to France, and king Arthur with his knights of the round table to England, is continued through 9 generations; but the question concerning its origin, and mixture of truth with fable, is involved in so much darkness, that it is even doubtful whether it originated with the Spanish, the Portuguese or the French. In the Spanish original, this romance is contained in 13 books, of which Cervantes, in the well-known examination of the library of Don Quixote, caused the 4 first to be preserved, because they were not only the first, but also the best and only books of this kind which Spain had produced; but the others were committed to the flames. These 4 contain only the history of *A. de Gaul*. Some say, that Vasco Lobeira, a Portuguese, who lived at the beginning of the 14th century, was their author; some, that they were written by an unknown Portuguese lady; and others ascribe them to the infante don Pedro, son of John I of Portugal. On the contrary, the count Tressan has endeavored to render it probable, that the honor of their authorship belongs to a French troubadour of the school of Rusticien de Puice, the author of nearly all the romances of the round table till the time of Philip Augustus (1180—1223). We shall be ready to acknowledge this, if it is established by a critical comparison of the most ancient manuscripts. Garcias Ordóñez de Montalbo, the corrector of the old edition, is said to have been the author of the 5th book, which contains the history of Esplandian, the eldest son of A. The 6th book, by Pelag. de Ribera, contains the adventures of the knight Florisando; the 7th, those of an unknown knight; and the 8th, by J. Diaz, contains the deeds of Lisuarte; the 9th and 10th, those of Flo-

risel, of A. of Greece, and of the knight Anaxante; the 11th and 12th, the adventures of Rogel and Agesilaus; and the 13th, those of Silvio de la Silva. The Spanish original goes no farther. Next follow the French translations, which have been increased to 24 books, since the translation of Nicholas d'Herberay, lord of Essars, in 1540. The books from the 14th to the 17th contain the exploits of Sphäramont and A. of the Star; those from the 17th to the 24th, the adventures of the remaining posterity of A. of Gaul, including the deeds of A. of Trebisonde. The separate parts of this work, which are seldom found all together, are of very various merit. The additions are by no means equal to the 4 first books. There is not one of the new German modifications of this romance, or, rather, this string of romances, which deserves the name. The New A. of Wieland, a licentious book, has nothing in common with the old A., except its title and profusion of adventures. A late French poet, Creuzé de Lesser, has undertaken to give the adventures of Arthur and his knights of the round table, Charlemagne and his Paladins, and Amadis, in a new dress. His version of the first of these contains 20 cantos. A second edition of it appeared in 1812. His Amadis, containing, likewise, 20 cantos, appeared in 1813.

AMALGAM; a name applied to the combinations of mercury with the other metals. (See *Mercury*.)

AMALIA, Anna, duchess of Saxe-Weimar, born October 24, 1739, daughter of Charles, duke of Brunswick-Wolfenbüttel, died 1806. During the latter half of the 18th century, this princess was the centre of a court, which, in more than one respect, resembled that of the duke of Ferrara, which was adorned by the presence of Tasso and Ariosto. She gave to learned men the support which they looked for in vain from the great princes of Germany, while she afforded them a point of union and an agreeable residence. She assembled round her Wieland, Göthe, Schiller, and many of the finest minds of Germany; and governed with wisdom after the death of her husband.

AMALTHÆA; the name of a goat in Crete, which suckled Jupiter when his mother concealed him there through fear of Saturn. From this goat came the horn of plenty, which Jupiter gave to the daughters of Melissus, who assisted Rhea, with the power of obtaining from it every thing necessary for their subsistence; called *cornu Amalthææ* (the same as

cornu copie, the horn of plenty). According to some, A. was the name of the nymph who watched this goat. The Cumanæan sybil also bore this name.

AMARANTH; a kind of flower which preserves its bloom after it is plucked and dried. On this account, poets make it an emblem of immortality.

AMATHUS; formerly a city in Cyprus, renowned for the worship of Venus, who is called, from this place, *Amathusia*.

AMATI; a family of Cremona, who manufactured violins, in the 16th and 17th centuries, which, on account of their full tones, are yet held to be the best in use, and have become very dear. They are called *Amati violins*, and also *Cremonas*.

AMAZON, AMAZONS, MARANON, OR ORELLANA; a river of South America, the largest in the world. It is formed by a great number of sources which rise in the Andes; but the two head branches are the Tunguragua and Ucayale, both rising in Peru, the former from lake Lauricocha, in lat. 10° 29' S., the latter formed by the Apurimac and Beni, the head waters of which are between lat. 16° and 18° S. The general course of the river is N. of E., and, including its windings, is upwards of 4000 miles in length. It flows into the Atlantic under the equator; the width of the mouth is stated by some writers at 150, by others at 180 miles. Boat navigation commences at Jaen de Bracomoros, in Quito; and it is said that vessels of 400 or 500 tons may sail from the mouth throughout almost the whole extent. The depth is stated at from 30 to 40 fathoms, 1500 miles from the ocean, and the tide is perceptible 600 miles. Its descent, in a straight course of 1860 miles, was found by Condamine to be 1020 feet (about 6½ inches in a mile); but the place where the tide is first perceived is only 90 feet above the sea. Its current is very rapid and violent.—It drains an extent of country about 1600 or 1700 miles from N. to S., receiving the waters of about 200 rivers, some of them as large as the Danube. From the N. it receives the Santiago, Morona, Pastaza, Tigre, Napo, Negro, Putumayo, Yupura, Yaguapiri, Curupatuba, Yari, &c.; from the S., the Guallaga, Ucayale, Cuchivara, Yahuari, Cayari, Madeira, Topayos, Kingu, Guanapu, Muju, &c.—The banks are clothed with immense and impenetrable woods, which afford a haunt to tigers, bears, leopards, wild boars, and a great variety of venomous serpents; they also abound in birds of the most beautiful plumage, and apes of the most fantastic

appearance. The waters swarm with alligators, turtles, and a great variety of fish. The vegetable productions, that grow wild, are cacao, cinnamon, vanilla, pines, &c. The country is adapted to coffee, sugar-canes, rice, maize, plantains, lemons, limes, and oranges. Here are also precious woods, as cedar, red-wood, holly-wood, pine, &c. In the rainy season, the river overflows its banks, and waters and fertilizes the adjacent country. The shores and islands were formerly peopled by numerous tribes of Indians, who have either become extinct or have retired to the mountains. The first European that visited this river was Francis d' Orellana, who, having met with some armed women on its banks, from this circumstance gave it the name of the *river of the Amazons*.

AMAZONS. An old tradition, which appears to be founded, in some measure, on historical truth, gives an account of a community of women, who permitted no men to reside among them, fought under the conduct of a queen, and long constituted a formidable state. They had commerce with the men of the neighboring nations merely for the sake of preserving their community. The male children they sent back to their fathers, but they brought up the females to war, and burned off the right breast, that this part of the body might not impede them in the use of the bow. From this circumstance, they were called *Amazons*; i. e., wanting a breast. The ancients enumerate 3 nations of A.—1. The African, who made great conquests under their queen, Myrena, but were afterwards extirpated by Hercules.—2. The Asiatic, the most famous of all, who dwelt in Pontus, on the river Thermodon. These once made war on all Asia, and built Ephesus. Their queen, Hippolyta, was vanquished by Hercules. They attacked Attica in the time of Theseus. They came to the assistance of Troy under their queen, Penthesilea, daughter of Mars and Otrere. About 330 years before Christ, their queen, Thalesis, made a visit to Alexander of Macedon, soon after which they disappear from history.—3. The Scythian A., a branch of the Asiatic. They attacked the neighboring Scythians, but afterwards contracted marriages with them, and went farther into Sarmatia, where they hunted and made war in company with their husbands.—The old geographers gave the name of *Amazonia* to a large tract of country in the interior of South America, because the first discoverers of the country

said that they found there a nation of Amazons. Later writers have corrected this error, and Amazonia has disappeared. It is laid down on the old maps as a part of what is at present Brazil and Peru. The river Amazon (q. v.), or Marañon, which inundates and fertilizes this country, as the Nile does Egypt, is the largest river in the world. (See *South America*.) Orellana, the first discoverer of the country, relates, that, as he sailed up the river, he found on its banks a nation of armed women, who made war on the neighboring people; and this circumstance gave the name to the river and country.

AMBASSADOR (French, *ambassadeur*); the highest degree of foreign ministers. They represent the person of their sovereign, or the people, if they are sent by a republic. They enjoy great privileges. Ambassadors, in this strict sense of the word, are sent at present only by a few of the most important governments of Europe, e. g. Spain, England, France, Austria, Russia: Prussia never sends them. The old republic of Venice was accustomed to send ambassadors, and was always considered equal in rank to a king.—For further information, see *Minister, foreign*.

AMBER. This well known mineral substance usually presents some shade of yellow in its color, from which it sometimes passes to reddish-brown. It is brittle; yields easily to the knife; is translucent, and possessed of a resinous lustre. Specific gravity, 1.081. It burns with a yellow flame, emitting a pungent, aromatic smoke, and leaving a light, carbonaceous residue, which is employed as the basis of the finest black varnishes. By friction it becomes strongly electric; from which property originated the name and science of electricity, "ἤλεκτρον" being the Greek word for amber; and with this substance Thales, one of the Greek philosophers, performed the first electrical experiment.—It is found in masses, from the size of coarse sand to that of a man's head, and occurs in beds of bituminous wood situated upon the shores of the Baltic and Adriatic seas; also in Poland, France, Italy and Denmark. More recently, it has been found in the U. States, at cape Sable, in Maryland. From its occurring very frequently attached to pieces of bituminized wood, and containing insects, it is inferred, with great probability, that amber originated from vegetable juices, and has undergone its present modification, possibly, from sulphuric acid, derived from the iron pyrites which

always abounds in the deposits where it occurs.—It is susceptible of a good polish, and has, at different times, been much esteemed as a personal ornament; but its want of hardness and lustre, together with the ease with which imitations are made of it, have brought it into comparative disuse.—By distillation, it affords an oil, and a peculiar acid, the former of which is denominated *oil of amber*, and the latter *succinic acid*, from *succinum*, the Latin name for amber. The succinic acid, when purified, exists in white, transparent, prismatic crystals. It is soluble in water and alcohol; has strong acid properties; it forms salts with the alkalis and several of the earths. The succinate of potash is useful in analysis for the separation of oxyde of iron. The oil of amber is used in medicine.

AMBERG; formerly the capital city of the Upper Palatinate, on the Vils, in the Bavarian dominions, in the midst of numerous iron-works. Lon. 11° 50' E.; lat. 49° 25' N. It contains 7680 inhabitants and 712 houses. The manufactory of arms yields yearly from 10,000 to 20,000 muskets of the best quality. The old fortifications serve for a public walk. At A. the archduke Charles, Aug. 24, 1796, defeated the French general Jourdan, and compelled him, Sept. 3, by the battle of Würtzburg, to retreat to the Rhine.

AMBERGER, Christoph.; a German painter of the 16th century, born in Nuremberg. He resided in Augsburg, where he painted, in 1530, a portrait of the emperor Charles V, who rewarded him richly, and honored him highly. This painting is now at Berlin. The *History of Joseph*, in 12 pictures, is said by Sandrart to be his best work. He painted in the powerful style of the elder Holbein, who was living in his time; he copied, also, many portraits of this master, and cut in wood. A. died between 1550 and 1560.

AMBERGRIS is found floating in the sea near the coasts of various tropical countries, and has also been taken from the intestines of the spermaceti whale, where it is supposed to originate, owing to disease. It is met with in masses of various sizes, sometimes weighing nearly 200 pounds. Its color is a yellowish or blackish white; it is generally brittle, and may be compressed with the teeth or nails. It melts at 140°, and is entirely dissipated on red-hot coals. It is soluble in æther, volatile oils and alcohol, and is chiefly composed of a peculiar animal substance called *adipocire*. Its odor is very agreeable, and hence arises its only

use. In the state of an alcoholic solution, it is added to lavender-water, tooth-powder, hair-powder, wash-balls, &c., to which it communicates its fragrance. Its retail price in London is a guinea per oz.

AMBOYNA; one of the largest and most valuable of the Molucca islands, in the Indian ocean, the seat of their government, and the centre of the commerce in nutmegs and cloves. It lies in E. lon. $128^{\circ} 15'$, and S. lat. $3^{\circ} 42'$, and is between 50 and 60 miles long. Its general aspect is beautiful, and its climate generally salubrious. It has been occasionally visited by earthquakes. It affords a great variety of beautiful wood for inlaying and other ornamental work. Rumphius reckons the species at 400. The clove-tree is the staple production of A. The island affords annually about 650,000 pounds of its fruit. The Dutch, during the long period of their possession of A., made every effort to monopolize this valuable spice. The number of trees was regularly registered by the governor, all the plantations of them visited, and particular districts devoted to their cultivation. They bought from the neighboring islands all the cloves that other nations were likely to import, and, in some cases, compelled the chiefs to destroy the rest, and even the trees that bore them. They are said to have prohibited the culture of many edible roots on the island, to withhold the means of subsistence from settlers and conquerors. Sugar and coffee are plentiful in A. Sago is the principal article of food. The few fruits cultivated are delicious. The natives, like other Malays, are rude and savage, and, when intoxicated with opium, capable of any crime. There are many Chinese and European settlers on the island, and mixed races, from inter-marriages, nearly as fair as Europeans. The Chinese are industrious, and live much together. Some of the aborigines in the woods are said to be as barbarous as ever, and to offer human sacrifices. When the English took A., in 1796, it contained about 45,252 inhabitants, of whom no less than 17,813 were Protestants; the rest were Mohammedans and Chinese. The houses of the natives are made of bamboo-canes and sago-trees. They sleep upon mats. Their weapons are bows, darts, cimeters and targets. They are said to be indolent, effeminate and pusillanimous, and their women to be licentious.—In 1605, A. was conquered by the Dutch, and taken from the Portuguese, its former masters. They did not,

however, get possession of the whole island, till after the lapse of some years. During this period, the English had erected some factories in A., and the dispute between the settlers of the two nations led to the event called the *massacre of Amboyna*. The Dutch accused the English inhabitants of being engaged in a conspiracy against the Dutch possessions. They were immediately seized, loaded with irons, thrown into prison, put to the torture to extort a confession, and those who survived this treatment were executed. The number of persons who perished were 22; 10 Englishmen, 11 Japanese, and 1 Portuguese. The English factory was in consequence withdrawn from the island, and the effects of the English merchants seized to the amount of £400,000. The English factories in the adjacent islands were also seized. James I and Charles I obtained no satisfaction for this outrage, but Cromwell compelled the United Provinces to pay £300,000 as a small compensation. A. has been twice taken by the English, in 1796 and 1810, but, after each capture, restored to the Dutch, in whose possession it is at present. The capital city of the island is called by the same name.

AMBRAS, or AMRAS; a castle in Tyrol, near Inspruck, formerly distinguished for its museum, containing armor, paintings, &c., and a library, which is now at Inspruck. The museum is at present in Vienna, and has been described by Alois Primisser (Vienna, 1819). 69 MSS. belong to this museum, one of which is a copy of the famous *Heldenbuch*.

AMBROSIA, in the mythology of the Greeks and Romans; a sweet and balsamic juice flowing from the soil of the happy island of Oceanus. It was the nutriment of the gods, and preserved their immortality. Generally it was taken as food, sometimes as drink, but must not be confounded with nectar (q. v.) It was used also as an ointment. Men who were allowed to partake of A. received an increase of beauty, strength, swiftness, and became, in some measure, assimilated to the gods.

AMBROSE, Saint; a celebrated father of the church; born 340, probably at Treves, where his father resided as governor of Gaul. Happy omens attended him, even in the cradle. A swarm of bees covered the eyes of the boy, while slumbering in the court of his father's castle, and, when the nurse hastened to him, she was astonished to perceive the bees going in and out of his mouth, with-

out doing him any injury. His father, recollecting, perhaps, a similar wonder mentioned of Plato, hoped, from this circumstance, that he was destined for greatness. His education was suitable to his rank; the best teachers at Rome, where the family had gone after the death of his father, formed his mind and his heart. After finishing their studies, A. and his brother, Satyrus, went to Milan, where they commenced the study of the law. Here A. distinguished himself so much that Valentinian appointed him governor of the provinces between the Alps, the Mediterranean, Tuscany, the Adige and the Adriatic sea. His kindness and wisdom gained him the esteem and love of the people; but their prosperity was interrupted by the disturbances growing out of the doctrines of Arius, and he was called to the bishopric of Milan, by the unanimous voices of Arians and Catholics. A. long refused to accept this dignity, but in vain. He fled by night, and thought himself on the way to Pavia, but unexpectedly found himself again before the gates of Milan. At length he yielded, received baptism, for he had hitherto been only a catechumen; and, eight days after, was consecrated a priest. The 7th of December is still celebrated by the church on this account. A. obtained great honor by his conduct as bishop. He died in 397. Amiable, affable, mild and modest, he used his authority only to promote the happiness of those around him, and the good of the Catholic church. His writings (the best edition is by the Benedictines, 2 vols., folio, 1686—90) bear the stamp of his character. The Ambrosian Chant, or *Te Deum Laudamus*, has been ascribed to him. Later critics, however, have shown that he should not be considered its author. A. improved the singing in the western churches. A Latin commentary on the 13 epistles of the apostle Paul, called *Ambrosiaster*, or *Pseudo-Ambrosius*, has been falsely ascribed to him.

AMBROSIAN LIBRARY. This collection of books at Milan, famous, in modern times, on account of the discoveries made by Angelo Maio, was opened to the public, in 1609, by cardinal Frederic Borromeo, a relation of St. Charles Borromeo. The cardinal, archbishop of Milan, a lover of knowledge, caused the books to be purchased by learned men whom he sent through Europe, and even through Asia. At the opening of the library, it contained about 35,000 printed books, and 15,000 manuscripts in all lan-

guages. It now contains 60,000 printed books (according to Millin, 140,000). It was called the *Ambrosian Library*, in honor of St. Ambrose, the patron saint of Milan. Angelo Maio, in his preface to the fragments of the Iliad, which he obtained from the treasures of this library has shown how the collection has been improved, particularly by the addition of the Pinellian manuscripts. Its learned founder wished to connect with it a college of learned men, who should take charge of the different departments of the library, and make known its treasures, particularly to foreigners, who wished for information. The want of funds reduced this college from 16 members to 2, who yet bear the title *Doctores Bibli. Ambros.*, with a gold medal, having *Singuli singula* inscribed on it. Besides the palimpsests discovered by Maio, this library contains a Virgil, in which is the account of Petrarch's first meeting with Laura, written by his own hand. At a little distance from the library is a gallery of works of art, containing, besides casts in plaster, several pictures of eminent masters, particularly the cartoon of Raphael's *School of Athens*, and the studies of Leonardo da Vinci, as well as the early copies of this great painter's *Last Supper* (*La Cena*). Of the 12 volumes, containing manuscripts in the hand of Leonardo da Vinci, which were formerly preserved as a treasure in the A. L., only 1 vol., more interesting than the others on account of the drawings in it, is to be found there at present; all the others having been carried to Paris.

AMEN, a Hebrew word, originally signifying *verily, truly*, has been transferred from the religious language of the Jews to that of the Christians. He who pronounced the blessing, at the close of the service in the Jewish synagogues, was answered by the Jewish audience with the word *amen*. Also, in the religious assemblies of the first Christians, the prayer made by the eldest of the worshippers, or by a teacher, was concluded by the people with an amen. Public prayers are still often concluded with this word. By the amen of a composer of music, we understand this word set to music to enable the choir to respond to the prayer or blessing chanted by the priest before the altar. Some amens are famous.

AMENDE HONORABLE was an infamous kind of punishment formerly inflicted, in France, upon traitors, parricides and sacrilegious persons. The offender being delivered into the hands of a hangman,

his shirt was stripped off, a rope put about his neck, and a taper in his hand; then he was led into court, where he was obliged to ask pardon of God, the king, the court and his country. Sometimes the punishment ended here; but sometimes it was only a prelude to banishment to the galleys, to imprisonment in the Bastile, death or torture.—*Amende honorable* is also a term used for making recantation in open court, or in presence of the person injured.

AMENDMENT, in law; the correction of any error committed in a process. An error in judgment cannot be amended, but an error after judgment may be. A writ of error must be brought by the party aggrieved by an error in judgment. Any error after judgment, in plea or otherwise, may always be amended, by leave of the court.—*Amendment*, in parliament or congress, denotes an alteration made in the original draught of a bill, whilst it is passing through the houses. Amendments may be made so as totally to alter the nature of the proposition; and it is a way of getting rid of a proposition, by making it bear a sense different from what was intended by the movers, so that they vote against it themselves. A member who has spoken to the main question may speak again to the amendment. (See, for this and other points respecting amendments, both in England and the U. States, Jefferson's *Manual of Parliamentary Practice*, sect. 35.) The French *Charte Constitutionnelle* says, article 46,—"*Aucun amendement ne peut être fait à une loi s'il n'a été proposé ou consenti par le roi, et s'il n'a été renvoyé et discuté dans les bureaux.*"

AMERICA. Eastward of Asia, westward of Europe and Africa, between the Atlantic and Pacific oceans, lies the continent of America. It extends from lat. 56° S. to an unknown northern latitude, and consists of two great divisions, North and South America (q. v.), which are connected by the isthmus of Darien or Panama. The whole continent is upwards of 9,000 miles in length, and from 1,500 to 1,800 in average breadth. The number of square miles which it contains is stated differently by different authorities. Templemann gives 14,323,000; Balbi, 14,622,000; Graberg, 15,737,000; Hassel, 17,303,000. Between the two great divisions lie the West India islands (q. v.), extending from the gulf of Mexico and the Caribbean sea into the Atlantic.—North America includes Greenland, belonging to Denmark; British America, which comprises New Britain, Upper Canada,

Lower Canada, New Brunswick and Nova Scotia; the Russian possessions in the north-west; the United States; Mexico, and Guatemala. The principal ranges of mountains are, the Alleghany mountains, the Rocky mountains, and the Cordilleras of Mexico. Some of the largest rivers are, the St. Lawrence, Mississippi, Missouri, Rio del Norte, Colorado, Arkansas, Red river and Ohio. North America contains the largest fresh-water lakes on the globe; some of the most extensive are, lakes Superior, Huron, Michigan, Erie, Ontario, Winnipeg, Slave lake, Athapescow, Champlain and Nicaragua. The principal bays and gulfs are, Baffin's bay, Hudson's bay, James's bay, the gulf of St. Lawrence, Delaware bay, Chesapeake bay, the gulfs of Mexico and California, and the bays of Honduras and Campeachy. The most important islands are, Newfoundland, Cape Breton, St. John's, Rhode Island, Long Island and the Bermudas on the eastern coast; queen Charlotte's islands, Quadra and Vancouver's island, king George III's island, and the Fox islands on the western coast.—South America comprises Colombia, Guiana, Brazil, Peru, Bolivia, Chili, Buenos Ayres, or the United Provinces of La Plata, and Patagonia. The principal range of mountains is the Andes. The largest rivers are, the Amazon, La Plata, Orinoco, Parana, Paraguay, Madeira, Tocantins, St. Francisco and Magdalena. There are few large lakes; some of the most considerable are, Maracaybo and Titicaca. The principal islands are, the Falkland islands, Terra del Fuego, Chiloe, Juan Fernandez and the Gallapagos.—The coast of A. was explored to 72° N. lat. by Hearne, in 1770; to 69° N. by Mackenzie, in 1789; to 78° N., along the shore of Baffin's bay, by captain Ross, in 1818; but its northern boundary is lost in the arctic circle. Near the southern extremity of America, in the latitude of 54°, lie the straits named, from the first circumnavigator of the world, *Magellan* (q. v.), and beyond, the southern promontory of the Terra del Fuego, cape Horn.—The continent of A. has been examined by Europeans principally on the seaboard. Expeditions, however, have been made through its interior, in several directions; e. g. through North America, by captains Lewis and Clarke, in 1804; major Pike, in 1805; through Brazil, by Langsdorf, Grant, Mawe, Koste, Eschwege, the prince of Newwied, Spix, Martius and others, especially by Alex. von Humboldt. (q. v.)—For the history of its aboriginal

population, and its condition before the arrival of the Europeans, only a small portion of the existing materials have, as yet, been collected. Traditions, monuments and other circumstances seem to indicate a double emigration from the East,—one across the Aleutian islands, another farther south, over the tract which occupied the present place of the Atlantic ocean, if such a tract ever existed, as many writers have imagined. Or are the earliest inhabitants of America, the Toltecas, in Mexico, descended from that branch of the Huns, who migrated to the north-east A. D. 100, and the nations of South America from a tribe of the Mexicans, driven southward by the plague, about the year 1050? More light, we hope, will be shed on this subject, especially on what respects North America, by the American antiquarian societies. From the first volume of the transactions of the one established at Worcester, in Massachusetts, it may be seen that those antiquities which pertain, in reality, to the North American Indians, consist, for the most part, of rude hatchets and knives of stone, of mortars for bruising maize, of arrow-heads, and similar articles. A second class consists of articles which the natives received from the earliest settlers. They are frequently found in the graves of the Indians. There is a third and more interesting class, derived from the nation that built the forts or *tumuli* (graves, walls, artificial eminences, hearths, &c.) in North America. To judge from these works, this nation must have been far more civilized, and much better acquainted with the useful arts, than the present Indians. From the lofty trees with which they are overgrown, it is concluded that a long period must have elapsed—perhaps 1000 years—since the desertion of these fabrics, and the extinction of the people by whom they were constructed. They are found in the vicinity of each other, spread over the great plains, from the southern shore of lake Erie to the gulf of Mexico, generally in the neighborhood of the great rivers. Their structure is regular, and they have been supposed to warrant the opinion of the existence, in ancient times, of great cities along the Mississippi. The *mummies*, as they are called, or dried bodies, enveloped with coarse cloth, and found in some of the saltpetre caves of Kentucky, are worthy of attention. As we proceed farther south, these works increase in number and magnitude. Their traces may be followed, through the provinces of Texas and New Mexico, into

South America.—Although the accounts of the earliest generations of this quarter of the world are scanty and obscure, its later history is rich in occurrences. The Icelanders made a voyage, in 982, to Winland (the name given to the tract extending from Greenland to Labrador); and the Venetians gave some information respecting the West India islands (in maps of 1424); but America still remained a sealed book for Europe till the period of its discovery by Columbus (q. v.), in 1492. Besides several voyages which he made subsequently to this continent, it was visited by Amerigo Vespucci (from whom it takes its name), in 1497; by Cabot, likewise, in 1497; by Cabral, in 1500, and by Balbao, in 1507. Shortly after, followed the expeditions of Cortez, Pizarro, &c. It is probable that the new world has not been inhabited more than 12 centuries. This circumstance, together with the oppression which the aborigines have suffered since the settlement of the whites in their country, will account for the smallness of their number.—Equally obscure with the origin of the Americans are their various ramifications. Their different languages, stated by Franc. Lopez at 1500, have been resolved, by Alex. von Humboldt, into 2 original tongues,—the Toltecan and the Apalachian. (See *Indians*.)—Nature has cast the surface of the new world in larger forms, and endowed it with fresher vitality, at least in the warmer regions, than she has bestowed on the soil of the old world. A. has every variety of climate; but the climate generally differs from that of the eastern hemisphere, by a greater predominance of cold. It is calculated that the heat is at least 10 degrees less, than in the same parallels in the eastern continent. A. abounds in almost all the varieties of the animal, vegetable and mineral productions. It contains a great variety of wild animals; and, since its discovery, the various domestic animals of Europe have been introduced, and are now found in great abundance. In comparing animals of the same species, in the two continents, it has been found, in a majority of instances, where a difference in size has been ascertained, that the American animal is larger than that of the eastern continent. The birds are exceedingly numerous, and are said to be more beautiful in their plumage than those of Asia and Africa, but in their notes less melodious. The condor, which frequents the Andes of South America, holds, on account of its size, strength and rapacity, the preëminence

over all the feathered creation. Reptiles are numerous, and many of them venomous. Insects abound, and, in many parts, are very offensive. The American waters are remarkable for the variety and abundance of their fish. A. produces every kind of grain, fruit, pulse, herbs, plants and flowers native to Europe, besides a great variety of others, as cacao, cinnamon, pepper, sarsaparilla, vanilla, scarlet dye, a great variety of balsams, mahogany, logwood, Brazil-wood, sassafras, aloes, barks, gums, resins and medicinal herbs. This continent, particularly South America and Mexico, abounds in gold and silver. Since the discovery of the American mines, such ample supplies of these precious metals have been carried to Europe, that their value has become much diminished. A. also produces an abundance of copper, quicksilver, iron, antimony, sulphur, nitre, lead, loadstone, and marbles of every sort. It has various kinds of precious stones, as diamonds, rubies, emeralds, amethysts, alabaster, &c. The inhabitants may be divided into 3 classes,—*Whites, Negroes and Indians*. The whites are descendants of Europeans, who have migrated to A. since its discovery. The Negroes are mostly held in slavery, and are descendants of Africans, forced from their native country. The Indians are the aborigines, and generally savages. They are of copper complexion, fierce aspect, tall, straight, athletic, and capable of enduring great fatigue. They are hospitable and generous, faithful in their friendships, but implacable in their resentments. Their common occupations are hunting, fishing and war. At the time of the discovery of America, the natives, in some parts, particularly Mexico and Peru, were considerably advanced in civilization. For the most part, they continue a distinct people, and retain their savage customs; but, in some instances, they have mingled with the white population. The Indians still occupy the greater part of America. In North America, they possess almost all the country, except the southern and eastern parts; that is, the northern part of Spanish America, most of the territory of the U. States which lies west of the Mississippi, and nearly all the vast regions which lie north of the U. States' territory, and west of the St. Lawrence. In South America, they possess Patagonia, and most of the interior of the continent.—The whites, who are descended from Spanish, Portuguese, British, French, Dutch, Danish, German and Russian colonists,

are estimated, by Humboldt, at 13,500,000

Indians, 8,600,000

Negroes, 6,500,000

Mixed races, 6,500,000

The whole amount is over 35 millions; some think there are 40 millions of inhabitants; but there is yet space and fertile soil for more than 500 millions. A great part of the Indians are subdued, and are included in the population of Mexico, Guatemala and the states of South America. The numbers of those who speak the different languages made use of in A., are thus distributed:

English language, 11,647,000

Spanish, 10,174,000

Portuguese, 3,740,000

Indian languages, 7,593,000

French language, 1,242,000

Dutch, Danish, Swedish

and Russian, 216,000

(See Carey and Lea's *Historical, Chronological and Geographical American Atlas*, &c., Philadelphia, 1825, fol.)—See also the different names mentioned in this article.

AMERICA, Geology of. The great leading features in the structure of the new world are,—1st. The continuous belt of high mountains and plateaus traversing its western border, from Behring's straits to Terra del Fuego, forming the most uninterrupted extent of primitive mountains known. Their northern portion, consisting of the Rocky mountains, appears to be chiefly granitic, while, in the Cordilleras of Mexico, and the Andes of South America, the primitive strata are, for the most part, covered with immense accumulations of transition porphyries, trachytes and lavas, forming numerous volcanoes, many of which are in constant activity. 2dly. The wide expanse of low and generally plain country, that succeeds immediately on the west to the above-mentioned zone of mountains, and through which, in both hemispheres, flow some of the most magnificent streams in the world. This region consists of immense deposits of newer rocks, over which is strewed every where, as with a mantle, the alluvial formation, or a covering of sand and gravel, with which are intermingled rolled masses of rocks. 3dly. The chain of mountains of lower elevation and inferior continuity, which forms the eastern boundary to the low country, and whose principal masses and highest points are composed of granite. 4thly. The clusters of islands occupying the seas between North and South America, which are, almost without exception, of a volcanic origin.—The geological character

of A. partakes of the simplicity observable in her great mountain ranges, which obey highly uniform laws of arrangement, and are, in a measure, free from those interruptions which occur in Europe, arising out of its numerous chains, whose irregular and often contradictory structure it is frequently difficult to reconcile or explain. The two continents agree in the prevailing primitive character of their northern extremities, and in the prevalence of volcanoes about their equatorial and southern regions; and an investigation of their geological relations affords no grounds for the common opinion, that the new world is of a more recent origin than the old.—For a more minute account of the geology of America, see *North America*, *Mexico* and *South America*.

AMERICAN COMPANY, the Russian. In 1785, two Russian mercantile houses, Schelikoff and Golikoff, projected the formation of a regular company, to encourage the fur-trade of the north-western shore of North America. They erected forts for the protection of a chain of factories on most of the islands, and induced several respectable merchants to join in their extensive and lucrative adventures. Many cruelties against the natives were charged upon the company, and the emperor Paul was upon the eve of suppressing it altogether, when the company pledged itself to more regular proceedings. In 1799, it was formally established with considerable privileges. The emperor Alexander took it under his particular patronage at his accession. The condition of the fur-collectors of the company is said, however, to be still wretched in the extreme, and only to be exceeded by that of the oppressed Aleutians, who are, in turn, their slaves.

AMERICANISM; an idiom, or use of the English language, peculiar to the inhabitants of the U. States. The deviations of the Americans from the English usage, in their common language, were occasionally noticed, many years ago, by some of their own writers, as well as by the critics of the mother country. Among the American authors, who have animadverted upon them, the most conspicuous was doctor Franklin, who was himself a writer of great purity and correctness of style, and who censured, in strong language, "the popular errors several of our states were continually falling into," both with respect to "expression and pronunciation." This remark was made 40 years ago, when he himself noted a few words, which, at that time, he pronounced to be

objectionable innovations "in our parliamentary language;" as the verbs *to notice*, *to advocate* and *to progress*, the last of which he condemned as "the most awkward and abominable of the three. The word opposed," he adds, "though not a new word, is used in a new manner; as, 'the gentlemen who are opposed to this measure, to which I have myself been opposed.'" Several other American writers have remarked upon particular words and expressions. The British reviewers and other writers have also, until very lately, indulged themselves in severe animadversions upon American writers, for their occasional deviations from the English standard; though, in some instances, they have themselves adopted the very words which they formerly condemned. Of the words thus sanctioned by them, the verb *to advocate* was, no longer ago than in the year 1793, denounced as one of the words which the Americans had "invented, without any apparent reason," and which the English had "altogether declined to countenance." But this ill-fated word, which was then proscribed as an American intruder into the language, has more recently been discovered to have been used as long ago as the age of Milton, the excellence of whose prose writings had, until modern days, been entirely lost sight of in the splendor and majesty of his poetic diction. We have still, however, some doubt whether Milton used this word in the sense now affixed to it both in England and America; it was certainly used in a different sense by his contemporaries, and the present meaning of it had not been sanctioned, as we strongly believe, by any subsequent writers (if we except a single instance in Burke's works), until it was brought into general use in America, by the writers of this country, and, more recently, by the authority of Milton's name, among English writers, some of whom now claim it as their own, with as much zeal as it was once condemned. (See Todd's edition of *Johnson's Dict.*) Some other words, which were either newly-coined, or old ones newly brought into use in America, have been admitted into good writing in England. The particulars in which Americans have departed from English usage, may be reduced to the following classes:—1. Words entirely new, of which the number is extremely small; e. g. *caucus*, *boatable*. 2. Words to which is affixed a meaning different from that of the English; e. g. *clever*, *to girdle*. 3. Words whose original meaning has been preserv-

ed by Americans, while the English have given them a new signification. 4. Provincialisms, originally brought from different counties in England, by the first emigrants to America, and still used here, just as they are in the mother country at this day. This class of words may be said to be wholly confined to the language of conversation. 5. Words which have become obsolete in England, but are still in use in America; as, *to tarry*. It may be further remarked, that, in all these classes, a great proportion of the words are of local use, technical, mere vulgarisms, or used only by individual writers, whose caprice and affectation of style are not followed by the nation at large.—We have observed, that single words and expressions had been occasionally mentioned by American writers many years ago. The first attempt to make a general collection of all such words as had been supposed to be American peculiarities, was that of Mr. John Pickering, who published a Vocabulary of them in the *Memoirs of the American Academy* (vol. 3, p. 439), in the year 1809. This valuable collection was afterwards reprinted, with large additions by the author, under the title of *A Vocabulary or Collection of Words and Phrases, which have been supposed to be peculiar to the U. States of America* (8vo., pp. 206, Boston, 1816), and was accompanied with a Memoir on the present State of the English Language in the U. States. It contains a list of about 500 words and phrases, which are all carefully examined, and traced, in almost every instance, to an English origin. This Vocabulary has been freely used in the late valuable edition of Johnson, by Mr. Worcester, who observes that it “has had a salutary influence on our literature, by calling the attention of our scholars to the occasional deviations of American writers from pure English.” Mr. Webster’s new Dictionary of the English Language (published 1829, New-York) contains many words with their American significations; but this work is not so complete in Americanisms as the Vocabulary of Mr. Pickering above-mentioned. We shall recur to this subject under the article *English Language*.—We cannot conclude these remarks, without directing the reader’s attention to the circumstance that England and the U. States of America afford the first instance in history of two great, independent and active nations daily developing new and characteristic features, situated at a great distance from each other, and having a common lan-

guage and literature. These relations must, sooner or later, exert a decisive influence upon the common dialect; for no language is so settled as not to undergo continual changes, if spoken by a nation in the full vigor of social and political life. Authority, in regard to language, will go far, but never can withstand for a long time the energies and wants of a free, industrious and thinking people. Spain and Portugal, indeed, with the independent nations of South America, present an instance in many respects parallel; but the contest of language will be more languid, in proportion as there is less energy and activity in the mother countries, and less progress in the arts and sciences, as well as less political advancement, in the states which have lately shaken off the yoke.

AMERICUS VESPUCCIUS; properly, *Amerigo Vespucci*; born March 9, 1451, at Florence, of an ancient family. He early made great progress in natural philosophy, astronomy and geography, at that time the three principal branches of science studied at Florence, on account of their importance in relation to commerce. In 1490, he went to Spain for the purpose of trading, and was at Seville when Columbus was making preparations for his second voyage. The success of Columbus’s undertaking excited Vespucci to give up trade, and explore these newly-discovered countries. According to his own account, in one of his letters, he entered on his first voyage, under the command of admiral Ojeda, May 20th, 1497, who left the harbor of Cadiz with 4 ships, and, after a voyage of 37 days, reached the main land of America, explored the bay of Paria, and the coast for several hundred miles, and, after 18 months, returned to Spain, and was received with distinction by the court at Seville. In May, 1499, he began his second voyage, the fruit of which was the discovery of a multitude of small islands. This is his own account. But it is fully proved, that no such voyage as the one first mentioned was made, and that his first expedition to the new continent was in 1499, under the command of Ojeda, a year after the discovery and examination of that part of the coast by Columbus. Other accounts of Vespucci are, also, inconsistent with the statement above given. (See Irving’s *Columbus*.) After this, he entered the service of king Emanuel of Portugal, and made 2 voyages in Portuguese ships; the first, May 10, 1501; the second, May 10, 1503. The object of this last voyage was to find a westerly passage to Malacca. A. arrived

at Brazil, and discovered the bay of All Saints. In 1505, he again entered the service of the king of Spain, but made no more voyages, as appears from memoranda, showing that he was at Seville till 1508, at which time he was appointed principal pilot. His duties were to prepare charts, and prescribe routes for vessels in their voyages to the new world, which soon received his name. This honor certainly belonged to Columbus rather than to A., for the prior discovery of the continent by the former is not to be questioned. We have a chart of America laid down by A.; a journal of 4 of his voyages, printed at Paris, 1532, in the Latin language, in 22 pages, 4to.; and Amerigo's Letters, which appeared at Florence after his death, published by John Stephen di Carlo da Pavia. Vespucci died at Seville, in 1512. Emanuel, king of Portugal, caused the remains of the ship *Victoria*, in which he had made his last voyage to America, to be hung up in the cathedral at Lisbon, and Florence conferred marks of distinction on his family. The accounts of his life are full of contradictions and perplexities. (See Irving's *Life of Columbus*, 3d vol., *Appendix*, No. ix.)

AMES, Fisher, one of the most eloquent of American statesmen and writers, was born at Dedham, in Massachusetts, April 9, 1758, of very respectable parents. Soon after the completion of his 12th year, he was admitted to Harvard college, with the reputation of uncommon talents and attainments. Diligence, regularity and success marked his collegiate course of four years. After receiving his degree, in 1774, the narrow circumstances of his widowed mother compelled him to postpone, for several years, the accomplishment of his original purpose of studying the law. In the interval, he acted as an assistant teacher in a public school, and continued to cultivate classical literature, to the signal improvement of his taste and fancy. At length, in 1781, he commenced the practice of the law, with the stock of knowledge which he had acquired in the office of a member of the profession, in Boston. Opportunity soon occurred for the display of his superior qualifications, both as a speaker and essay writer. The fame which followed his early efforts conduced to place him in the Massachusetts convention for ratifying the constitution, in 1788. From this sphere, in which he made a deep impression by some of his speeches, particularly that on biennial elections, he passed to the house of rep-

resentatives in the state legislature. Here, he soon became so eminent as an orator and man of business, that the voters of the Suffolk district elected him their first representative in the congress of the U. States. He had not been long in that assembly before his friends and admirers were satisfied that they had not overrated his abilities. He won there the palm of eloquence, besides proving himself equal to the discussion of the deepest subjects of politics and finance, and the execution of the most arduous committee labors. He remained in congress during eight years, the whole of Washington's administration, which he constantly and zealously defended. "His speech on the British treaty," says his distinguished biographer, doctor Kirkland, "was the æra of his political life. For many months, he had been sinking under weakness, and, though he had attended the long and interesting debate on the question which involved the constitution and the peace of the U. States, it was feared he would be unable to speak. But when the time came for taking a vote so big with consequences, his emotions would not suffer him to be silent. His appearance, his situation, the magnitude of his subject, the force and the pathos of his eloquence, gave this speech an extraordinary power over the feelings of the dignified and numerous assembly who heard it. When he had finished, a member in opposition moved to postpone the decision of the question, that they might not vote under the influence of a sensibility which their calm judgment might condemn."—On the retirement of Washington, Mr. A. returned to his residence at Dedham, where he occupied himself with the management of his farm and the practice of the law. The latter he relinquished in a few years, owing to the decline of his health; but he felt too deep an interest in the welfare of his country to withdraw his mind and pen from politics. He published a considerable number of essays, relating chiefly to the contest between Great Britain and revolutionary France, as it might affect American liberty and prosperity. No writer evinced more ardor for the success of Britain, or more horror of the character and tendencies of the French despotism. In 1804, Mr. A. was chosen president of Harvard college,—an honor which he declined. When Washington died, Mr. A., then a member of the council of the commonwealth, was appointed to pronounce his funeral eulogy before the legislature of Massachusetts.—The injury

which his constitution sustained in 1795 was never fully repaired. From that period his health declined, until, at length, after an extreme debility for two years, death ended his sufferings. He expired July 4, 1808; and, when the intelligence of this event was received, a public meeting of citizens was held, in order to testify the general respect for his character. His remains were carried to Boston, where they were interred with honors such as had not been before paid to those of any private citizen.—In 1809, his works were issued in a large octavo volume, with prefatory notices of his life and character, from the pen of the reverend doctor Kirkland, president of Harvard college, who had enjoyed his personal friendship and intimacy. The volume is fraught with profound remarks, various historical lore, and eloquent declamation. Although the political interest of most of the topics is gone, there remains much to captivate and reward attention in the richness of fancy, warmth of feeling, beauty of language, and felicity of copious illustration, which distinguish almost every page.—Fisher Ames left seven children and a wife, to whom he was tenderly attached. In person, he exceeded a little the middle stature, was well-proportioned and perfectly erect. His features and countenance were fine, and his manners easy and affable. Of his delivery as an orator, his biographer states, that he did not systematically study the exterior graces of speaking, but his attitude was firm, his gesticulation natural and forcible, his voice clear and varied, and his whole manner earnest and expressive. According to the same authority, all the other efforts of his mind were probably surpassed by his powers of conversation.

AMES, Joseph, the historian of British typography, was born at Yarmouth, 1688.—9. He published, in one vol., 4to., 1749, "Typographical Antiquities, being a historical Account of Printing in England, with some Memoirs of its ancient Printers, and a Register of the Books printed by them from 1471 to 1600; with an Appendix concerning Printing in Scotland and Ireland to the same time." Mr. A. died in 1739. Besides his great work, he wrote a Catalogue of English Printers from 1471 to 1700, 4to., and several other works. An enlarged edition of the *Typographical Antiquities* was published by the late Mr. W. Herbert, vol. 1, 1785, vol. 2, 1786, and vol. 3, 1790. A new and splendid edition of Ames and Herbert has

since been presented to the world by the Rev. T. F. Dibdin.

AMETHYST. (See *Quartz*.)

AMHERST; a pleasant and flourishing post-town of Massachusetts, in the county of Hampshire; 8 miles N. E. of Northampton, 90 W. of Boston; pop., in 1820, 1917. It is noted chiefly for its literary institutions, which consist of a college, an academy, and a seminary styled the *Mount Pleasant Classical Institution*. Amherst college was opened in 1821, and incorporated in 1825. It is a flourishing institution, and has 3 edifices or halls for the accommodation of students. In 1828, the college was under the direction of a president, 5 professors, one tutor and 2 assistant teachers, and had 211 students.

AMHERST, Jeffery, lord, a distinguished British general officer, was descended from an ancient Kentish family, and born in 1717. He early devoted himself to the profession of arms, receiving an ensign's commission when only 14 years of age. At the age of 25, he acted as aide-de-camp to lord Ligonier, in the battles of Dettingen and Fontenoy, and afterwards served on the staff of the duke of Cumberland, at those of Laffeld and Hastenbeck. In 1756, he received the colonelcy of a regiment, and was appointed major-general, and, in the summer of 1758, commanded the expedition against Louisburg, which, together with the whole island of Cape Breton, surrendered to his arms. The capture of fort du Quesne, Niagara and Ticonderoga in due time followed; and, in 1760, the whole of Canada being reduced, general Amherst received, for his share in these exploits, the thanks of the house of commons, and the order of the Bath. In 1763, he was made governor of Virginia; in 1770, governor of the isle of Jersey, and, in 1772, lieutenant-general of the ordnance, and officiating commander-in-chief of the English forces. Besides these, and several other military honors, he was, in 1776, created a peer by the title of baron Amherst of Holmesdale in the county of Kent. On the breaking up of the North administration, lord Amherst was removed from the commandership-in-chief, and the lieutenancy of the ordnance, and, in 1787, received another patent of peerage as baron Amherst of Montreal, with remainder to his nephew, William Pitt Amherst; and, on the staff being re-appointed in 1793, he was once more called upon to act as commander-in-chief. In 1795, he resigned the commandership-in-chief to the duke of York, and, in 1796, received the rank

of field-marshal. He died in 1797, in the 81st year of his age. A. was twice married, but left no issue, being succeeded by his nephew as aforesaid. Lord Amherst was regarded as a man of a collected and temperate mind, without brilliancy or parade; a strict officer, yet the soldier's friend. He had two brothers, one an admiral of the blue, the other a lieutenant-general; it is the son of the latter who has succeeded him.

AMIANTHUS; a kind of flexible asbestos. (q. v.)

AMIDSHIPS; the middle of a ship, either with regard to her length or breadth.

AMIENS, in Picardy; a fortified city in the French department of the Somme, situated on the river Somme; lon. 2° 18' E.; lat. 49° 53' N. It contains 5980 houses, 41,000 inhabitants, is the residence of a bishop, and has possessed, since the year 1750, a *Société d'Émulation*, an academy of arts and sciences, of literature, commerce and agriculture, a lyceum, a school at St. Acheul, under the direction of the Jesuits, a convent of the order of la Trappe, in the abbey du Gard, many considerable manufactories of woollen cloth, tapestry, damask and kersey-mere (of which 130,000 pieces are sold annually), leather, soap, as well as 80 cotton factories. The pastry of A., also, often goes across the channel, and is very celebrated.

AMIENS, peace of; concluded March 27, 1802, by Joseph Bonaparte, the marquis Cornwallis, d'Azzara, and von Schimmelpenninck. In 1800, England saw herself deprived of all her continental alliances; the Russian emperor, Paul, was dissatisfied that Malta was not restored to the order of which he was grand master, and Pitt had laid an embargo on the ships of Prussia, Denmark and Sweden, because, at the instigation of Paul, they determined to revive the armed neutrality of the north. On the other hand, the ports of the continent were closed against the English ships, and this circumstance gave the opposition in parliament a majority against the ministry. At the same time, the minister could not obtain the consent of the king to the emancipation of the Catholics. So the Pitt ministry was dissolved, and the speaker, Addington, took Pitt's place, as first lord of the treasury. The new ministry, of which lord Hawkesbury was secretary of foreign affairs, commenced negotiations for peace, and the preliminaries were signed at London, Oct. 1, 1801. A definitive treaty was concluded at A.

between Great Britain, France, Spain and the Batavian republic, March 27, 1802. England retained, of her conquests, the islands of Ceylon and Trinidad; the harbor of the cape of Good Hope remained open to her ships. France regained her colonies, and the Arowari was made the boundary of her possessions in Guiana on the side towards Brazil. The republic of the Seven Islands was acknowledged, and Malta was restored to the order of the same name. Spain and the Batavian republic, also, regained their colonial possessions, with the exception of Ceylon and Trinidad. The French were to evacuate Rome and Naples, together with Elba. The house of Orange was to be indemnified; the *status quo ante bellum* guaranteed to the Porte; and, on these conditions, the sultan Selim formally acceded to the treaty of A., May 13, 1802. But this peace soon became generally unpopular in England; for the first consul fitted out a great expedition against St. Domingo, and wished to place French consuls in all the ports of Ireland. On the other hand, Great Britain declined evacuating Egypt and Malta, maintaining that France had first threatened; in which assertion they were confirmed by Sebastiani's inconsiderate report of his mission to Egypt. May 10, 1803, the English court declared the conditions on which, alone, all new differences could be reconciled; demanded indemnification for the king of Sardinia, who had been expelled from the continent; restitution of the island of Lampedusa, and the evacuation of the Batavian and Helvetian republics by the French troops. These conditions the French refused, and the court of St. James declared war, May 18, 1803.

AMILCAR, or **HAMILCAR**; the name of several Carthaginian generals. A. Barcas, the father of Hannibal, is the most celebrated of them. The Roman fleet defeated his, near Trapani, 242 B. C., and thus put an end to the first Punic war. A. began the second, landed in Spain, and subdued its most warlike nations; but, as he was preparing for an expedition against Italy, he was killed in battle, A. U. C. 526, B. C. 228. He left 3 sons, and is said to have made Hannibal swear an eternal hatred against the Romans.

AMIOT, father; a French Jesuit, born, in 1718, at Toulon; a missionary to Pekin, who has contributed much to our knowledge of China. We owe to him the most elaborate account of the antiquities, the history, the language and the arts of this kingdom. In 1750, he went to Macao,

and, in the following year, by the invitation of the emperor of China, to Pekin, where he remained till his death, in 1794. Uninterrupted study gave him a knowledge of the Chinese and Tartar languages, by means of which he became acquainted with China through the best sources. Most of his valuable works, which treat of the writing, the art of war, the music, &c., of the Chinese, together with a biography of Confucius, and a grammar, &c. of the Tartar-Mantcheou language, are to be found in *Mémoires concernant l'Histoire, les Sciences et les Arts des Chinois*, the 10th part of which sets forth, in 14 columns, his contributions to the first ten volumes. He wrote, also, *Éloges de Moukden*, published by Guignes, and the *Dictionnaire Tatarmantcheou-Français*, published by Langlès.

AMMIANUS, Marcellinus; a Roman historian, of the 4th century after Christ, born at Antioch, in Syria. His work, in 31 books (of which only 24 are extant), includes the history of the Cæsars, from Nerva to Valens. It may be considered a continuation of Tacitus and Suetonius, and is very interesting and instructive. There is an old and good edition by Gronovius (Leyden, 1693), a later one by Ernesti (1773), and the latest by Wagner (Erfurt and Leipsic, 1808, 3 vols.).

AMMIRATO, Scipio; a distinguished Italian historian, born at Lecce, in Naples, 1531. After having travelled through Italy, he was employed by the grand duke of Tuscany to write the history of Florence; for which he was presented to a canonry in the cathedral there. Some of his works, while in this station, are, 1. *Arguments*, in Italian verse, 4to. Venice, 1548. 2. *Il Decalione Dialogo del Poeta*, 8vo. Naples, 1560. 3. *Istorie Fiorentine, dopo la Fondazione di Firenze insino all'anno, 1574*. He died in 1601.

AMMON; a Libyan deity. Some writers make him a son of Triton; others say, that he was found in a wood, where, with the exception of a sheep, no living thing was to be seen; and affirm, therefore, that he was the son of this sheep and Jupiter. Others say, that, when a boy, he was found by some herdsmen, playing in the sand, between Carthage and Cyrene; and that, as long as he remained on the sand, he continued uttering predictions, but, as soon as they removed him, he became dumb. Finally, it is related, that Bacchus, on his journey through India, being exhausted by heat and thirst, called upon Jupiter for help, not far from Xerolibya; thereupon a ram ap-

peared, and, stamping with his foot, opened a spring in the sand, and then vanished. This ram he acknowledged as Jupiter himself, paid him divine honors, and built a temple to him. According to Diodorus Siculus, A. was a king in Libya, whose wife was Rhea, sister to Saturn, and whose mistress was Amalthea, by whom he had Bacchus. The latter built that celebrated temple to A., where he delivered oracles, not by words, but by signs made by his priests, and where he was exhibited under the form of a ram, or, according to some, of a man with a ram's head or horns. Alexander visited this temple, and was declared, by the priests, a son of the deity. For an account of this old temple of A., in the Oasis of Siwah, see, also, *Oasis* and *Meroe*.—A.'s horn is a species of fossil, in the form of a ram's horn.—A., in Hebrew history, the son of Lot, by his youngest daughter. He was the father of the Ammonites.

AMMONIA; an alkaline substance, differing from the other alkalies by its volatility, not being obtained pure, except in its gaseous form, and hence called the *volatile alkali*. It is obtained by mixing together equal weights of dry quick-lime and muriate of ammonia (*sal ammoniac*), separately powdered, and introducing them into a retort or iron bottle, and applying heat. It is a transparent, colorless gas, of little more than half the weight of common air, and has an exceedingly pungent smell, well known under the old name of *spirits of harts-horn*. It extinguishes flame, and is fatal to life. It is decomposable, by a strong heat, into 3 parts, by measure, of hydrogen, and 1 of nitrogen gas. It is rapidly absorbed by water, which dissolves one third of its weight of this gas, or 460 times its bulk, and forms the aqueous ammonia, or *agua ammonia*, as it is commonly termed in commerce. The process for procuring this is merely to connect a retort, or iron bottle, containing the muriate of ammonia and quick-lime (generally slacked), with a common still and refrigeratory, and apply a moderate heat. It is very accurately valued by its specific gravity; that used in medicine is about 0,950. It is also soluble in alcohol, and is used in medicine under the name of *spirits of hartshorn*.—Ammonia combines with the acids, and forms a numerous class of salts: with carbonic acid, it forms the carbonate of ammonia (*volatile sal ammoniac*), which was formerly prepared from the destructive distillation of animal substances, but is now fabricated, in part,

by mixing one proportion of muriate of ammonia with two of carbonate of lime, in a state of dryness, and subliming in an earthen pot; and, more largely, from purified sulphate of ammonia, mixed with one quarter of its weight of chalk, finely ground, and previously calcined, introduced into cast-iron retorts, and subjected to a red heat: the carbonate of ammonia, as it is formed, is conveyed by a tube into a leaden or cast-iron receiver, where it is condensed. It is used as a stimulant, usually in the form of smelling-bottles, and also by bakers, to raise their bread lighter and quicker than by yeast alone. With muriatic acid, ammonia forms muriate of ammonia (*sal ammoniac*). It is found native in fibrous masses and crusts, sublimed into the cracks of lava, among other volcanic matters, about the craters of volcanoes. The muriate of ammonia of commerce, however, is prepared, by a tedious process, from an impure carbonate of ammonia, obtained by the distillation of bones and other animal matters: the carbonate is decomposed by sulphate of lime, and the sulphate of ammonia again by muriate of soda; and the muriate of ammonia is separated from the sulphate of soda by crystallization, after which it undergoes the process of sublimation two or three times; and, this being done in rounded vessels, it assumes the form with which we are familiar with it in commerce. The sulphate of ammonia, obtained in procuring gas-lights for illumination from coal, is also made use of in the manufacture of sal ammoniac. It has lately been discovered, that muriate of ammonia exists in the water of the ocean, and that it may be obtained, by sublimation, from the uncrystallizable part called *bittern*.* This salt was formerly imported from Egypt, but is now manufactured in Europe. Great quantities are annually carried from Bucharian Tartary to Russia and Siberia.—Sal ammoniac is applied to many useful purposes. Occasionally, it is used in medicine. A considerable portion of it is consumed by dyers, to give brightness to some of their colors. It is also employed in the assay of metals, to discover the presence of iron; and, having the property of rendering lead brittle, is sometimes used in the manufacture of shot. By coppersmiths and tinnerns, it is used for cleansing the surface of the metals which they are about to cover with tin. It is said that 20 tons of sal ammoniac, for the purpose of soldering, are yearly used in Birmingham.

* Phil. Trans. 1822, p. 454.

AMMONIA, nitrate of, is formed by saturating diluted nitric acid with carbonate of ammonia. From it is obtained the nitrous oxyde, or exhilarating gas.

AMMONIA, sulphate of, in the form of stalactites, is found in the fissures of the earth surrounding certain small lakes in Tuscany, also in the lavas of *Ætna* and *Vesuvius*, and, dissolved in a spring, in *Dauphiné*. It is, of late, obtained in large quantities, as a secondary product in the distillation of coal for gas-lights. A chaldron of Newcastle coal affords 200 pounds of ammoniacal liquor, which consists chiefly of sulphate of ammonia and carbonate of ammonia. It is used for the manufacture of sal ammoniac and volatile salt.

AMMONIUS. There were many learned men and philosophers in Alexandria of this name:—1. A Peripatetic or rather Eclectic philosopher, who was the instructor of *Plutarch*, in the first century after Christ. 2. A., surnamed *Saccas*, who was a founder of the new Platonic school in Alexandria, 193. (See *Alexandrians*.) 3. A disciple of this school, in the 5th and 6th centuries, son of *Hermias*, scholar of *Proclus*, and master of *Simplicius*.

AMMUNITION BREAD, SHOES, STOCKINGS, &c.; such as are contracted for by government, and served out to private soldiers.

AMNESTY (*Greek*, from *a priv.* and *μνάωμαι*, to remember), in law; an act of oblivion; the entire freedom from penalty, granted to those who have been guilty of any neglect or crime, usually on condition that they return to their duty within a certain period. An amnesty is often declared in case of the rebellion of whole districts or countries, because it is not possible to exercise on them the severity of the law, and it is often considered sufficient to punish the leaders. In domestic disturbances and civil wars, oblivion of the past is a necessary prelude to peace. But amnesties are often only deceitful assurances, of which modern history affords many instances. The amnesty, or the religious peace, of 1570, in France, was followed, in 1572, by the shocking spectacle of a government causing a part of its subjects to be murdered. (See *St. Bartholomew's massacre* of.) The terms of the religious peace concluded at *Passau*, 1552, contain an amnesty, in which the campaign of the elector, *Maurice*, of Saxony, against the emperor *Charles V.* is mildly termed an excursion for the sake of military exercise, and full

forgiveness is promised to all who had taken part in the war. Also in the peace of Westphalia (art. 2.), after much difficulty, a full and general amnesty, from the beginning of the disturbances in Bohemia, was granted. A general amnesty was proclaimed in England, 1660, at the restoration of Charles II, from which the king excepted no one, and the parliament only the judges of Charles I. The French revolution is rich in amnesties; the victorious party promising them to their opponents, or securing themselves in this way from punishment. At the restoration, a formal amnesty was not thought expedient; but in the *Charte Constitutionnelle*, (art. 11), all prosecutions on account of political offences are forbidden. Notwithstanding his abdication, Napoleon Bonaparte considered those who had conspired, in 1814, to overturn his throne, as state traitors, and, March 12, 1815, granted them an amnesty, at Lyons, from which only 13 men (prince Talleyrand, Bourienne, the duke of Dalberg, &c.) were excluded. At the second restoration, Jan. 12, 1816, all who had taken an immediate part in the usurpation of Bonaparte were pardoned, with the exception of only 19 persons, who were prosecuted under the decree of July 24, 1815 (Ney, Labédoyère, Lavalette, Bertrand, Rovigo, &c.), besides 38 others, whom the king was to have the right of banishing any time within two months (Soult, Bassano, Vandamme, Carnot, Hullin, Merlin, &c.), and, in fine, all those who had voted for the death of Louis XVI (*régicides*), and such as had taken office during the "hundred days." These, as well as all the members of the Bonaparte family, were banished from France. Many of them have been permitted to return. Also, in the Italian and Portuguese revolutions and counter-revolutions, such political amnesties have been proclaimed, with more or fewer restrictions. An article of this nature is to be found in the peace signed at Vienna between Prussia and Saxony.—For amnesties in Spain, see *Spain*.—Of all the instances of amnesties which history affords, there have been few in which the promise of forgiveness has been strictly kept by the ruling party, when seated in secure possession of power. Generally, governments have found means to punish their opponents without openly violating their promise of pardon.

AMOR, with the Romans; with the Greeks, *Ἔρως*; the god of love. According to the later mythology, A. is the son

of Venus and Mars, the most beautiful of all the gods; a winged boy, with bow and arrows, sometimes represented blind-folded. His arrows inflict the wounds of love, and his power is formidable to gods and men. He is not always a playful child in the arms of his mother, but appears sometimes in the bloom of youth, e. g., as the lover of Psyche. He is brother to Hymen, the god of marriage, whom he troubles much by his thoughtlessness. (See *Hymen* and *Cupid*.) According to the earlier mythology (that of Hesiod and Orpheus), he is the eldest of all the gods, and existed before any created being. By his means the sterile Chaos brought forth Nox, from whom issued Day and Light. This eldest A. is the lofty idea of the all-exciting and all-fructifying love. To him, according to some writers, Hate is opposed. In English, the god of love is less frequently called A. than *Cupid*; yet, with the ancients, *Cupido* denoted, properly, only the animal desire, which the Greeks expressed by the word *Παθος*.

AMORETTI, Abbate Carlo; born at Oneglia, March 13, 1741, died at Milan, in 1816; a great mineralogist, and, since the year 1797, one of the *conservatori* of the Ambrosian library. Till 1772, he was professor of canon law at Parma. Being well versed in modern languages, he endeavored to make known to his countrymen the progress of other nations in the arts and sciences. A. was a member of many learned societies in Italy. Between 1775 and 1788, he published, at Milan, 27 vols. in quarto, with engravings, *Nuova scelta d'Opuscoli Interessanti sulle Scienze e sulle Arti*, in connexion with several friends. His knowledge of the art of mining obtained him a seat, in 1808, in the *Consiglio delle Miniere*. He first encouraged a careful examination of the treasures of the Ambrosian library, in which Maio has since exerted himself so successfully. By his means, the following works were printed:—the first voyage round the world of Pigafetta di Vicenza, from 1519—1522, and a treatise on navigation, by the same; also, the north-eastern voyage through the Atlantic and the Pacific oceans, by captain Maldonado (this appeared in 1811); and, in 1804, Leonardo da Vinci's *Trattato della Pittura*, with plates; also a biography of this renowned painter, in 1806; and, finally, in 1808, *Codice Diplomatico Sant' Ambrosiano*, a supplement to the collection of Italian documents, of the 8th and 9th centuries, by Pater Fumigalli. Of his great

work, *Della Rabbomanzia Ossia Elettrometria Animale Ricerche Fisiche e Storiche*, Milan, 1808, he published, in 1816, an abridgment, *Elementi di Elettrometria Animale*.

AMORTIZATION; the right of transferring lands in mortmain, i. e. to some community which is never to cease. This word is used in France and Germany to signify the redeeming of public debts. *Amortissement*, from *amortir*, is the French word for *sinking fund*.

AMOS, the prophet; a herdsman who appeared in the vicinity of Jerusalem, under the kings Josias of Judah, and Jeroboam II of Israel, B. C. 850, and preached with zeal against the idolatry then prevailing in Israel. His prophetic book, contained in the Old Testament, is made up of descriptions of the moral profligacy and idolatry of this people, and of threatenings and promises, similar to those which the other Jewish prophets have delivered. His peculiarities are the use of certain rural images, a rounded style, clearness in the construction of his sentences, and distinctness in his descriptions. He is among the best of the Hebrew writers.

AMPELLITES, or **CANDLE-COAL**, or **CANAL-COAL**. (See *Coal*.)

AMPHIARAUS; son of Oicleus (according to some, of Apollo) and Hypermnestra; endowed by the gods with prophetic powers. Foreseeing that he should perish before Thebes, he hid himself; but, being betrayed by his wife, Eriphyle (q. v.), he joined Polynices in his expedition against this city, and was one of his most valiant warriors. The besiegers having been repulsed in one of their attacks, the earth opened under him in his flight, and swallowed him, with his horses. On the spot where this event is said to have taken place, at Oropus, a feast was celebrated in honor of him (*Amphiaraea*), and, not far from this city, a temple was dedicated to him, where oracles were delivered. His death was revenged by his son, Alcmaeon.

AMPHIBIA; animals of the third class, in the Linnæan system, most of which, by their peculiar anatomy, are able to live either upon land or in the water. Since Cuvier's exertions to introduce a better classification in zoology, this term has been superseded by the term *reptilia*. (See *Reptiles*.)

AMPHIBIOLOGY, in grammar; a loose manner of expression, whereby the sense may be construed into a double meaning. It has a similar application to phrases or

sentences with the word *equivocal* in respect to words.

AMPHIBRACHYS. (See *Rhythm*.)

AMPHICTYONS, court of the; an assembly composed of deputies from the different states of Greece, according to most authors, established by king Amphictyon, son of Deucalion and Pyrrha, according to Strabo, by Acrisius, king of Argos, as a point of union for the several Grecian states. At first, they assembled at Delphi; in later times, at Thermopylæ, or rather at the neighboring village, Anthela. 12 Grecian states sent 2 deputies each, who assembled with great solemnity; composed the public dissensions, and the quarrels of individual cities, by force or persuasion; punished civil and criminal offences, and, particularly, transgressions of the law of nations, and violations of the temple of Delphi. After the decision was published, a fine was inflicted on the guilty state, which, if not paid in due time, was doubled. If the state did not then submit, the whole confederacy took arms to reduce it to obedience. The assembly had also the right of excluding it from the confederation. An instance of the exercise of this right gave rise to the Phocian war, which continued 10 years.

AMPHIMACER. (See *Rhythm*.)

AMPHION; son of Jupiter and Antiope; the eldest of the Grecian musicians. In Lydia, where he married Niobe, the daughter of king Tantalus, he learned music, and brought it thence into Greece. He reigned in Thebes, which was before called *Cadmea*. A. joined the lower and upper city by walls, built the 7 gates, and gave it the name of *Thebes*. To express the power of his music, and, perhaps, of his eloquence, the poets said, that, at the sound of his lyre, the stones voluntarily formed themselves into walls; that wild beasts, and even trees, rocks and streams, followed the musician. With the aid of his brother, Zethus, he is said to have revenged Antiope, who was driven into banishment by his father, and to have bound Dirce to the tail of a wild bull; which incident is supposed to be represented by the famous piece of sculpture, the Farnese bull.

AMPHISBÆNA; a genus of serpents, so called on account of the shape of its body, which is of equal thickness from head to tail; they are, consequently, difficult to distinguish. This occasioned the notion of its having two heads. Different naturalists establish different numbers of species. Doctor Shaw mentions two, viz.

the *alba* and the *fuliginosa*. The *alba* is about 18 or 20 inches long, and totally white. It is a native of South America, and a harmless animal. The *fuliginosa* is white, with black or deep-brown spots. The head is without spots. It is found in many parts of South America, and in Libya. It is innocuous. All the other species are also found in America.

AMPHITHEATRE, with the Romans; a building without a roof, of a round or oval form, destined for the combats of gladiators, or of wild beasts. In the middle was the arena, a large place covered with sand, on which the fights were exhibited. Round about were the vaults or caves, in which the animals were kept; above these was the gallery, from which ascended successive rows of seats, each of greater height and circumference than the preceding. The 14 first were for the senators and judges, the others for the common people. In the year 709 from the building of the city, Julius Cæsar erected the first large amphitheatre at Rome, for his gladiatorial exhibitions. It was of wood, and was pulled down after it had been used. Statilius Taurus, 20 years later, built the first stone one. The Coliseum (q. v.), at Rome, is the largest of all the ancient amphitheatres. In Verona there is one, the interior of which still shows the whole ancient architecture, and is carefully preserved; it is called there *arena*. Of all the Roman antiquities, none has withstood the effects of time so well as this remarkable building. The form is oval, and the architecture is in the taste of the Coliseum at Rome. There is another at Pola.

AMPHITRITE; daughter of Oceanus and Tethys, or of Nereus and Doris. Neptune wished to make her his wife, and, as she hid herself from him, he sent a dolphin to find her, which brought her to him, and received as a reward a place among the stars. As a goddess and queen of the sea, she is represented as drawn in a chariot of shells by Tritons, or riding on a dolphin, with the trident of Neptune in her hand.

AMPHITRYON; king of Thebes, son of Alcæus, and husband of Alcmena. Plautus, after him Molière, and, still later, Falk and Kleist, have made the trick played upon him by Jupiter (see *Alcmena*) the subject of amusing comedies, in which the return of the true A., and his meeting with the false one, occasion several humorous scenes at the palace and in the city. The French give this name to a courteous host,

AMPLIFICATION, in rhetoric; the part of a speech wherein circumstances are enumerated and dwelt upon to excite the minds of the auditors. Some writers on rhetoric understand by amplification only the explanation of a subject by examples. The Greek and Roman rhetorical writers meant by it a mode of adding to or detracting from the dignity of a subject by an accumulation of words or ideas. Longinus defines amplification the collection of all the circumstances connected with a subject, in order to give force to that which is already proved. The amplification generally embraces both these objects. Cicero and other ancient orators make the *amplificatio* and *enumeratio* (recapitulation) essential to a speech. In this case, amplification, also called *exaggeratio*, embraces only the concluding strokes by which the orator sought to heighten the effect of what he had said. Every one, who makes use of this rhetorical figure, ought to remember the simple and just remark of Boileau:

Tout ce qu'on dit de trop est fade et rebutant.

AMPLITUDE, in astronomy; the distance of any celestial body, or other object (when referred by a secondary circle to the horizon), from the east or west points; the complement to the amplitude, or the distance from the north or south point, is called the *azimuth*.—*Amplitude* denotes, also, with reference to the direction of the magnetic needle, or compass, the arc of the horizon contained between the sun or a star, at its rising or setting, and the magnetical east or west points of the horizon; or it is the difference of the rising or setting of the sun or star from the east or west points of the compass.—In gunnery, *amplitude* is sometimes used for the range of a shell, or other projectile, from its departure out of the mouth of the piece to the place where it falls. Thus the French engineers speak of the *amplitude de parabole*, &c.

AMPULLA, in antiquity; a vessel bellying out like a jug, that contained unctions for the bath; also a vessel for drinking at table. In ecclesiastical rites, the ampulla was employed for several purposes, such as holding the oil for chrismation, consecration, &c., also for anointing monarchs at their coronation. In England and France, a vessel of this kind is still in use for the last-mentioned purpose. The French ampulla is at Rheims, the archbishop of which performs the coronation of the French kings. A dove, it is said,

brought this ampulla from heaven for the baptismal unction of the crafty Clovis I, in 496. In the revolution, this ampulla was lost; and it is said that a soldier oiled his boots with the miraculous liquid. On the late coronation of Charles X, the public papers stated that a phial containing some of this unction had survived the catastrophe. The ampulla of the English kings, now in use, is an eagle, weighing about 10 ounces, of the purest chased gold. Having passed through various hands to the Black Prince, it was by him deposited in the tower. Henry IV is the first king who was anointed from it. (See *Anointing*.)

AMPUTATION, in surgery; that operation by which a member is separated from the body according to the rules of the science. Though the medical art endeavors to prevent the necessity of amputation, yet many cases arise in which it is absolutely necessary, in order to save the life of the patient. It may be considered as one of the great victories which science and skill have gained over barbarism. There is no decisive proof that Hippocrates ever performed this operation. A. C. Celsus, who lived under Tiberius, has left a short description, in his book *De Re Medica*, of the mode of amputating gangrenous limbs. Paulus Ægineta, about eight centuries afterwards, suggests little improvement. The Arabians seem to have made little progress in the art of suppressing the bleeding after the amputation, which was still the most important desideratum. The greatest improvements were introduced by Pari, a French surgeon, in the 16th century, since whose time amputation has been performed with much skill among all civilized nations, and, in the latest times, with a boldness at which former ages would have shuddered, and with great precision and success. The late wars in Europe have advanced this branch of the surgical art, perhaps, more than any former period, by the number and variety of the cases requiring amputation, which they have presented. Increasing knowledge of anatomy has continually increased the boldness of the operator.

AMRETSIR, i.e. *the pool of immortality*; formerly called *Chak*, a town of Hindostan, in the province of Lahore, the principal place of the religious worship of the Seiks. It is, on account of its favorable situation between Cabul and Delhi, Cashmere and the Deccan, a place of great trade; but its chief importance is derived from the sacred pond, constructed

by Ram Dass (one of the earlier pontiffs of the Seik faith), in which the Seiks and other Hindoo tribes immerse themselves, that they may be purified from all sin. This holy basin is 135 paces square, built of brick, having in its centre a temple dedicated to the Hindoo saint Gooroo Govind Singh. Under a silken canopy, in this temple, is deposited the saint's book of religion and laws, called *Grant'h*. The voluntary contributions of pilgrims and devotees support this place, to which 600 priests are attached.

AMSTERDAM; the chief city of the Netherlands; lon. 4° 44' E.; lat. 52° 25' N.; situated at the mouth of the Amstel, where it falls into an arm of the sea, called *Y or Wye*, 65 miles from Antwerp, 240 miles north-east of Paris. This famous commercial city, by the constitution of the Netherlands, the capital of that kingdom, though not the usual residence of the royal family, was, at the beginning of the 13th century, a fishing village in the possession of the lords of Amstel. About the middle of that century, it became a small town, and obtained a municipal government. In 1296, it was suddenly attacked and plundered by the neighboring Kennemers, on account of the participation of Gysbert of Amstel in the murder of the count Floris of Holland, and Gysbert himself was expelled. In this way Amsterdam, together with Amstelland, came under the rule of the counts of Holland, who granted the city many privileges. Amsterdam soon acquired an important commerce in the Baltic sea, and, in the 16th century, was a place of considerable commerce. The transition from the bondage of its lords to the state of subjects of the counts of Holland was the origin of its prosperity. A second cause was its deliverance from the Spanish dominion. It became, in a short time, the first commercial city in the United Provinces. In 1585, after Antwerp had fallen a second time under the dominion of Spain, its extensive commerce was transferred to Amsterdam, and the western or new part of the city was built. The city received new accessions in 1593, 1612, 1658. In 1622, it contained 100,000 inhabitants. Its increasing importance awakened the envy of its neighbors. In 1587, Leicester attempted to take it by treachery, and prince William II, in 1650, by surprise. Both attempts were frustrated by the prudence of the two burgo-masters, Hooft and Bicker. The burgo-masters of Amsterdam then acquired so much weight in the assembly of the

states general, that their authority, during the first 94 years of the 18th century, rivalled that of the hereditary stadtholder. During this period of prosperity, A. acquired so great wealth, that it surpassed every other city in Europe. It was the great market of all the productions of the East and West, and its harbor was always full of ships. The fame of Dutch honesty and frugality increased the flourishing trade of the city. This was obstructed, however, by the sand bank before the Pampus, on account of which large vessels could not enter without unloading part of their cargoes into lighters. Vessels, moreover, could not sail from the Zuyder-zee, near the Texel, except with certain winds. Finally, A. has often experienced great depression during the continuance of wars. Even in the glorious period of the 17th century, in 1653, the war with England did such injury to its commerce, that 4000 houses in the city were left unoccupied, and, it is said, the exchange was overgrown with grass. Commerce, however, afterwards revived, and continued, with little diminution, even during the unquiet period from 1780 to 1794, with the exception of the time of the English war, from 1781 to 1782. But after the change of government in 1795, the trade and wealth of A. continually diminished. The forced alliance of Holland with France, which obliged her to follow the French policy, against the powers at war with France, operated to the great disadvantage of A. Louis Bonaparte endeavored to restore the trade of Holland by means of grants and privileges, and even transferred his residence and the seat of government to A. in 1808; but the first measure only irritated Napoleon against Holland, and the other, though it opened some new sources of trade, was followed by various disadvantages. The complete incorporation of Holland with France, in 1810, entirely annihilated the foreign trade of A.; and many other measures, as, for instance, the introduction of the monopoly of tobacco and of the *droits réunis*, as they were called, were very injurious to the domestic trade of the city. The revolution of 1813 restored the business of A. Since that time, its commerce has increased very considerably. Many of the long-established houses are very rich, but, nevertheless, for several reasons, less actively engaged in trade than the merchants of Antwerp.—Besides the public buildings, Amsterdam contained, in 1732, 26,385 dwelling-houses, besides a great

number of ship-yards, manufactories of ropes, cordage, tobacco, &c. The number of inhabitants was, in 1796, 217,000, in 1808, 208,000, among whom were 20,000 Jews. In 1820, however, there were but 180,000, of whom 90,000 were Calvinists, 38,000 Catholics, and 30,000 Lutherans. From comparing the censuses, it appears that the proportion of the male to the female sex is about 4 to 5. In 1817, the number of the poor of all degrees amounted to 39,000. On account of the lowness of the site of the city, the greater part of it is built on piles. A. affords a splendid prospect from the harbor by reason of its numerous steeples; the view from the Amstel bridge is also very fine. In earlier times, A. was a strong fortress. Its 26 bastions, and its means of inundating the country, made even Louis XIV cautious of attacking it; but, in 1787, when threatened by a Prussian army of only moderate size, it was obliged to surrender after the capture of the fortified villages in the vicinity. In consequence of the changes which have taken place in the mode of conducting sieges, A. can be defended only by the inundation of the surrounding country. Yet it is said, that, in the last years of the reign of the ex-king Louis, a plan was formed for the regular fortification of A. On the side towards Haarlem, the city is, at present, protected by the sluice of Halfwegen, and on the eastern side by the fortress of Naarden. Within the semicircle which the borders of the city describe on the land side, several canals form many smaller semicircles, which all open into the Amstel river, or into the Y, or Wye. Among the public buildings, the old stadthouse is particularly famous. The building began under the superintendence of the architect Jacob van Kampen, after the peace of Westphalia, in 1648, which fixed the independence of the Dutch republic, and it was finished in 1655. In the vaults under the stadthouse are deposited the treasures of the bank of Amsterdam. This splendid building stands upon 13,659 piles, is 282 feet long, 235 feet wide, and 116 feet high, without reckoning the high tower. The interior of this magnificent building was decorated, by the Dutch painters and sculptors of the 17th century, with their master-pieces. The patriotic Dutch were therefore highly offended, when Louis Bonaparte, in 1808, chose the stadthouse for his residence, and his attendants and courtiers occupied the council-rooms of the fathers of the city. The hall prepared for the

reception of the throne on this occasion is probably the finest in Europe. The magnificent museum of Dutch paintings, which were exhibited in the stadt-house, is now transferred to the Trippen-house. The present king, also, resides in this palace (the former *stadhuys*), when he is at Amsterdam. The public weigh-house, which was opposite to it, was pulled down under king Louis, in order to have an open space before the palace, and was transferred to the western market. The magistrates of the city now assemble in the former royal hall. The exchange of Amsterdam, which was built between 1608 and 1613, rests upon five vaulted arches, under which the Amstel flows into the Damrack water; it is 250 feet long and 140 feet wide. The East India house, of which a whole wing, used for granaries, lately tumbled down, the national ship-yard, and the magazine upon the Katenburg, at the Y, are at present used for other purposes of commerce and navigation. The beautiful Trippen-house, where the academy of arts and sciences assembles, is now a temple of the arts and sciences. The society *felix meritis* (established by the merchants), which promotes the study of every thing that can occupy and ennoble the mind; the society *doctrina et amicitia*; the *tot nut van't algemeen*, devoted to the liberal arts and sciences; the excellent reading-room; several musical societies; the Dutch, French and German theatres; the *hortus medicus*, belonging to the *Athenæum illustre*; the famous Latin schools; the many excellent national poets,—prove the taste of the citizens of A. for science and learning. Their regard for religion, charity and order is manifested by the numerous churches, by the hospital for the aged, the poor-house and orphan asylum, the houses of correction, the navigation school, the many societies for humane objects, and the work-houses of different descriptions. The churches are numerous; among them the Dutch Reformed have 10, the French 1, the English 1, the Roman Catholics 18, and even the Greeks and Armenians have a church. The most splendid is the new church upon the Damm, in which the pulpit and organs are master-pieces; here you see the monuments of the admiral de Ruyter, of the valiant von Galen, and of the great poet Vondel; here, also, after so many storms, the fabric of the state was strengthened by the adoption of the constitution, and by the allegiance sworn to the present sovereign, March 29 and 30, 1814. In

the Oude Kerk monuments are erected to the naval heroes Heemskerk, van der Zaan, Zweerts and van der Hultz. The Western Kerk has a handsome steeple. With so much that is beautiful and great, and with a trade which affords the means of support to every industrious man, A. has, indeed, the disadvantage of a very damp air, and an offensive, mephitic smell, which often rises, in summer, from the canals. It suffers, also, from the want of good spring-water, and from the inconvenience of very high and narrow dwelling-houses, occasioned by its crowded population. The new canal, extending from its harbor to the extreme point of North Holland, 26 feet in depth, is of great advantage to A. It removes some of the chief impediments to the commerce of the city, viz. the necessity which existed of unloading large vessels, before they could enter the harbor, and of encountering the passage through the Zuyder-zee, which was peculiarly difficult with contrary winds. The shipping of goods to and from Amsterdam will, therefore, be effected in future more promptly and cheaply. This canal extends from A. to Nieuwe Diep. The distance between the extreme points is 41 English miles; but the canal is about 50 miles and a half long. The breadth at the surface is 124½ English feet; the breadth at the bottom, 36 feet; the depth, 20 feet and 9 inches. It passes through a somewhat marshy country, and touches, besides several villages, the cities of Purmerend and Alkmaar. Like the Dutch canals generally, its level is that of the high tides of the sea, from which it receives its supply of water. The only locks which it requires, of course, are two tide-locks at its extremities; but there are, also, two sluices with flood-gates in the intermediate space. The locks and sluices are double, that is to say, there are two in the breadth of the canal. The canal is wide enough to admit of one frigate passing another. The time spent in tracking vessels from the Helder to A. is 18 hours.—There is an excellent account of this city, in a medical point of view, by D. C. I. Nieuwenhuijs: *Proeve tener geneeskundige plaatesbeschrijving der Stad Amsterdam*, Amst., 1820, 4 vols.

AMSTERDAM; an island of the South Pacific ocean, in lon. 76° 54' E., and lat. 38° 42' S., first visited by van Vlaming, a Dutch navigator, in 1697, and explored, in 1793, by the gentlemen attached to lord Macartney's embassy to China. The length of the island, from N. to S., is

upwards of 4 miles; its breadth, from E. to W., about 2½ miles. A fertile, but very soft and spongy, soil covers the island, which bears every where unquestionable marks of a volcanic origin. Several springs of hot water were visited by the travellers, of which the average heat is about 212° Fahr. The soil is evidently a decomposition of lava, which is continually spreading a rich mould over all parts of the island, for the tall, rank grass that abounds in it. The putrefaction of vegetable matters mixes with this lava and with the mouldering ashes, while the long roots of the grass form the principal tie of the whole. The soil is so light, that the foot breaks in at every step. Sea-birds abound on the island. Near the centre is an area of about 200 yards square, where the heat of the soil is so great, as to admit of no vegetation. During the winter months, violent storms prevail in A. On the shores of the island, immense numbers of seals were formerly taken, of the *phocourzina* species. The people of the U. S. have taken more of these useful animals here than any other nation. They are altogether the most active seal-hunters in the South sea. The number of seals on the island is now very much less than when it was first visited, as is always the case in places where the animal is actively hunted. At first it was immense, as it usually is in undisturbed resorts of this creature. The American vessels, at present, generally leave a number of men on the islands frequented by the seal, and return to take them after they have had time to collect a sufficient number of skins. The neighborhood of A. abounds in fish.

AMSTERDAM; a small, uninhabited island in the North sea, near the N. W. coast of Spitzbergen. Dutch vessels resort thither towards the end of their whale-fishery. Lon. 9° 40' E.; lat. 79° 46' N.

AMSTERDAM; an island in the South sea. (See *Tongataboo*.)

AMSTERDAM ISLAND; a small island on the N. W. coast of Ceylon, 5 miles long and 2 in breadth; lon. 8° 1' E.; lat. 9° 50' N.

AMSTERDAM, New; a town in Dutch Guiana, situated between the rivers Berbice and Canje; lon. 57° 15' W.; lat. 6° 20' N. It is the seat of the government of Berbice.

AMUCK, or AMOK; an Indian term for slaughter, and an exclamation of certain Batavian slaves, who, when irritated, intoxicate themselves with opium, and run

frantic about the streets. This is called running *a-muck*, or *a-mock*.

AMULET; a piece of stone, metal, or other substance, marked with certain figures or characters, which people wear about them as a protection against diseases and enchantments. The name, as well as the thing itself, is derived from the East. The word comes from the Arabic *hamail* (locket, any thing hung round the neck). The derivation from the Latin *amollire* has less probability. Amulets serve as a convenient substitute for the talismans of stone or metal, and must be thought of more recent origin. Among the Turks, and many people of Central Asia, every individual thinks an amulet necessary to secure him from harm. They were introduced into Christian Europe by the Jews. With the ancients, e. g., the Egyptians, Greeks, Romans, they were frequently found. From the pagans they were introduced among the Basilidians. Their amulets were stones with the word *Abraxas* (q. v.) engraved on them. The Jews had many superstitious notions about amulets. Many Christians of the first century wore amulets, which were marked with a fish, as a symbol of the Redeemer. To the Christian divines, the use of amulets was interdicted, by the council of Laodicea, under penalty of dismission from office. With the spread of Arabian science and astrology, the astrological amulets of the Arabians, the talismans (q. v.), came into use in the West. The small images of saints, which the Neapolitan seamen, and almost all the Greeks, wear about them, are nothing but amulets. The Turks, the Chinese, the people of Thibet, and many other nations, have yet great confidence in them.

AMUSETTE; a small 1 pound cannon, employed in war, in mountainous regions. Lightness and a great facility of movement are its advantages. Marshal Saxe recommends the A. strongly. The count of Lippe Bückeburg improved it essentially, and introduced it among the Portuguese infantry. Each platoon had an A. drawn and served by 5 men. The duke of Weimar, also, in 1798, gave his riflemen amusettes. At present they are out of use in all armies.

AMYGDALUS. (See *Almond*.)

AMYOT, James; an old French writer, who died 1593, at the age of 79. He was bishop of Auxerre, and is known even in foreign countries, by his much esteemed translations of Plutarch and Diodorus.

ANA. This termination, derived from

the Latin, when connected with a proper name, is used to denote collections of the sayings of distinguished men, or of anecdotes relating to them. These collections are numerous; and compilations of the same character were known even among the Greeks. The *Memorabilia* of Xenophon, and the *Lives* of the Philosophers by Diogenes Laërtius, are full of anecdotes and sayings. The *Attic Nights* of Aulus Gellius contain many observations and repartees of distinguished persons in Rome. Thus, according to Quintilian, a freed man of Cicero left a whole book of his master's jests, and another freed man of Mæcenas the table-talk and witticisms of this distinguished friend of the muses. At the time of the restoration of learning, the sayings of famous men began to be collected. The *Scaligeriana* were the first compilation which appeared under that name. Since that time, they have become common, particularly among the French, who have often used them merely as a vehicle for disseminating certain opinions under some famous name. Among the French collections are the *Huetiana*, *Menagiana*, *Volterriana*, *Bonapartiana*, *Bièvrina*, *Brunetiana*, *Pradiana*, &c. Among the English, such collections are also very common, e. g., *Walpoliana*, *Baconiana*, *Parriana*, &c. Selden's *Table-talk* and Boswell's *Life of Johnson* are of a very similar character, though they have not a similar title. The Germans make not so much use of the syllable *ana*, as their literature is extremely poor in memoirs and works of the sort above mentioned, when compared with the English or French. In some instances, however, they employed it, e. g., *Taubmanniana*. The most famous German work of this kind is Luther's *Table-talk* (*Tischreden*). Collections of a different kind, likewise, bear a title terminating in *ana*, e. g., *Parisiana*, *Revolutionaria*, *Polissoniana*, *Ivrogneriana*. There even exists a work entitled *Encyclopediana*, ou *Dictionnaire Encyclopédique des ana*, by la Combe, Paris, 1791, 4to. M. Peignot has published a *Bibliographie raisonnée des ana*. (See his *Répertoire de Bibliographies spéciales, curieuses et instructives*, Paris, Renouard, 1810, 8vo.)—If it is allowable to add the syllable *ana* to proper nouns, still such words as *Encyclopediana*, *Literariana*, &c., will always be barbarous and offensive to a cultivated ear.

ANA SANTA; the name of three desert islands in the Atlantic ocean, W. lon. 43° 44', S. lat. 2° 30', near the coast of Bra-

zil, in the bay of San Luis de Masanas; also of an island on the coast of the province of Maranhão, called *Dos Macomes* by the Portuguese, and of another in the straits of Magellan, on the northern coast, near the entrance of the South sea. Also the name of several points.

ANABAPTISTS (from the Greek ἀνά and βαπτίζω); a name given to a Christian sect by their adversaries, because they objected to infant baptism; they baptized again those who joined their sect, and hence their name. It is certain that infant baptism was not customary in the earliest period of the Christian church. (See *Baptism*.) In the middle ages, it was declared invalid by many dissenting parties, as the Petrobusians, Catharists, Picards, &c.; but in the prevailing church, for important reasons, it was retained. In 1521, when the progress of the reformation had opened the way to new opinions, some enemies of infant baptism appeared at Zwickau, in Saxony, united partially with the rebels in the peasants' war, and were completely separated, by their lawless fanaticism, from the Protestant cause. (See *Münster*.) With the baptism of adults, performed even by laymen, they connected principles subversive of all religious and civil order. They acknowledged neither ecclesiastical nor civil authority; and attempted to bring about a perfect equality of all Christians. The vast increase of their adherents from the year 1524, especially among the common people on the Rhine, in Westphalia, Holstein, Switzerland, and the Netherlands, was soon met by severe measures on the part of the magistrates. After 1525, imperial and ecclesiastical decrees were issued against the Anabaptists in Germany, and many were put to death, after being urged to recant. The same happened in Switzerland and in the Netherlands. Still, new associations of this sect were perpetually formed by itinerant prophets and teachers; and their doctrines consisted of the following propositions: "Impiety prevails every where. It is therefore necessary that a new family of holy persons should be founded, enjoying, without distinction of sex, the gift of prophecy and skill to interpret divine revelations. Hence they need no learning; for the internal word is more than the outward expression. No Christian must be suffered to engage in a legal process, to hold a civil office, to take an oath, or to hold any private property; but all things must be in common." With such sentiments, John Bockhold, or

Bockelson, a tailor of Leyden, aged 26, and John Matthias, or Matthiesen, a baker of Harlem, came, in 1533, to Münster in Westphalia, a city which had adopted the doctrines of the reformation. Here they soon gained over a portion of the excited populace, and, among the rest, Rothmann, a Protestant clergyman, and the counsellor Knipperdolling. The magistrates in vain excluded them from the churches. They obtained possession of the council-house by violence. Their numbers daily increased, and, towards the end of the year, they extorted a treaty, securing the religious liberty of both parties. Being strengthened by the accession of the restless spirits of the adjacent cities, they soon made themselves masters of the town by force, and expelled their adversaries. Matthiesen came forward as their prophet, and persuaded the people to devote their gold and silver and movable property to the common use, and to burn all their books but the Bible. But in a sally against the bishop of Münster, who had laid siege to the city, he lost his life. He was succeeded in the prophetic office by Bockhold and Knipperdolling. The churches were destroyed, and twelve judges were set over the tribes, as in Israel; but even this form of government was soon abolished, and Bockhold, under the name of *John of Leyden*, raised himself to the dignity of king of *New Zion* (so the Anabaptists of Münster styled their kingdom), and caused himself to be formally crowned. From this period (1534), Münster was a theatre of all the excesses of fanaticism, lust, and cruelty. The introduction of polygamy, and the neglect of civil order, concealed from the infatuated people the avarice and madness of the young tyrant, and the daily increase of danger from abroad. Bockhold lived in princely luxury and magnificence; he sent out seditious proclamations against neighboring rulers, against the pope and Luther; he threatened to destroy with his mob all who differed in opinion from him, made himself an object of terror to his subjects by frequent executions, and, while famine and pestilence raged in the city, persuaded the wretched, deluded inhabitants to a stubborn resistance of their besiegers. The city was at last taken, June 24, 1535, by treachery, though not without a brave defence, in which Rothmann and others were killed, and the kingdom of the Anabaptists destroyed by the execution of the chief men. Bockhold and two of his most active companions, Knipperdolling and Krechting, were tortured to death

with red-hot pincers, and then hung up in iron cages on St. Lambert's steeple at Münster, as a terror to all rebels.—In the mean time, some of the 26 apostles, who were sent out by Bockhold to extend the limits of his kingdom, had been successful in various places, and many independent teachers, who preached the same doctrines, continued active in the work of founding a new empire of pure Christians, and propagating their visions and revelations in the countries above-mentioned. It is true that they rejected the practice of polygamy, community of goods, and intolerance towards those of different opinions, which had prevailed in Münster; but they enjoined upon their adherents the other doctrines of the early Anabaptists, and certain heretical opinions in regard to the humanity of Christ, occasioned by the controversies of that day about the sacrament. The most celebrated of these Anabaptist prophets were Melchior Hoffmann and David Joris. The former, a furrier from Swabia, first appeared as a teacher in Kiel, in 1527; afterwards, in 1529, in Emden; and finally in Strasburg, where, in 1540, he died in prison. He formed, chiefly by his magnificent promises of a future elevation of himself and his disciples, a peculiar sect, whose scattered members retained the name of *Hoffmannists*, in Germany, till their remains were lost among the Anabaptists. They have never owned that Hoffmann recanted before his death. David Joris, or George, a glass-painter of Delft, born 1501, and re-baptized in 1534, showed more depth of mind and warmth of imagination in his various works. Amidst the confusion of ideas, which prevails in them, they dazzle by their elevation and fervor. In his endeavors to unite the discordant parties of the Anabaptists, he collected a party of quiet adherents in the country, who studied his works (as the Gichtelians did those of Böhme), especially his book of miracles, which appeared at Deventer in 1542, and revered him as a kind of new Messiah. Unsettled in his opinions, he travelled a long time from place to place, till, at last, to avoid persecution, in 1554, he became a citizen of Bale, under the name of *John of Bruges*. In 1556, after an honorable life, he died there, among the Calvinists. In 1559, his long-concealed heresy was first made public. He was accused, though without much reason, of profligate doctrines and conduct, and the council of Bale condemned him, and ordered his body to be burnt. A friend of Joris was Nicholas, the founder

of the Familists, who do not belong, however, to the Anabaptists. After the disturbances at Münster, an opinion slowly gained ground among the Protestants, that no heretic could be punished with death unless he was guilty of exciting disturbances; hence these and similar parties of separatists were permitted to remain unmolested, provided they continued quiet. But, till after the middle of the 16th century, prophets were constantly rising up among the Anabaptists, and subverting civil order. Of the heretics executed by Alva in the Spanish Netherlands, a large proportion were Anabaptists. In fact, they were never worthy of toleration, till quiet and good order were introduced among them. The institutions of Menno were the first occasion of this change. This judicious man, about the middle of the 16th century, united them in regular societies, which formed an independent church, under the name of *Mennonites*, *Mennists*, or *Anabaptists*, as they are still called in the north of Germany and in Holland, imitating strictly the peculiarities of the primitive apostolical church. But he could not prevent the division, which took place among them as early as 1554, in regard to the degree of severity necessary in case of excommunication. The stricter party punished every individual transgression against morality and church order with excommunication, and carried their severity so far that near relations, even husbands and wives, were obliged to renounce all connexion with one another, in case of such punishment. The more moderate party resorted to excommunication only in case of long-continued disobedience to the commands of the Holy Scriptures. Moreover, they never inflicted this punishment till after various kinds of warnings and reproofs (*gradus admonitionis*), and even then it did not extend beyond the relation of the individual excommunicated with the church. As neither party would yield, and the strict often excluded the moderate from their communion, the Anabaptists have continued, to this day, divided into two parties. The moderate party were called *Waterlanders*, because their earliest congregations lived in the Waterland, on the Pampus in the north of Holland, and in Franeker. By the strict party they were styled the *Gross*, and even the *Dung-carts*, as a designation of their inferior purity. This latter party, who consisted of the Frieslanders in and about Emden, Flemish refugees (Flemingians), and Germans,

called themselves the *Pure* (*Die Feinen*), i. e. the *Blessed*, the *Strict*. Menno did not wholly adopt the excessive rigor of the *Pure*, nor yet would he abandon the Frieslanders, among whom he taught. Immediately after his death, in 1565, a contest broke out among the *Pure*, and they divided into three parties. Of these, the Flemingians were more severe and fanatical than the rest, and maintained the utmost severity in regard to excommunication; the Frieslanders did not indeed exercise this discipline on whole congregations, nor extend the curse, in the case of individuals, to the destruction of their family relations; the Germans were distinguished from the Frieslanders only by more carefully avoiding all luxury. To the party of these Germans belonged those who were settled in Holstein, Prussia, Dantzic, the Palatinate of the Rhine, Juliers, Alsace, and Switzerland, and the numerous Anabaptists, who inhabited Moravia till the 30 years' war. In 1591, they were united again with the Frieslanders by means of the *concept of Cologne*, so called, or articles of faith, chiefly because their separation was injurious to commerce, in which the Anabaptists soon became much engaged. With these two sects, thus connected, after many attempts towards reconciliation and friendship, the strictest Anabaptists at length joined themselves, and certain articles of faith were adopted by the whole body. But these arrangements were insufficient to check the bitterness with which they persecuted one another. Soon after the union of the Frieslanders with the Germans, a large number of malcontents left the former, because they were displeased with this connexion and the laxness of the church discipline. Under Jan Jacob, their teacher, they constituted a separate church on the most rigid principles. They were not numerous. During the negotiations of the Flemingians with the Frieslanders, there appeared among the former a Friesland peasant, Uke-Wallis, who held the opinion that Judas and the high-priests were blessed, because in the murder of Jesus they had executed the designs of God. In 1637, he collected a party of individuals, who adopted this opinion, but still remained distinct from the other Anabaptists, on account of their aversion to the excessive strictness of the ancient Flemingians. The Uke-Wallists, or *Gröningenists*, so called because the sect arose in the territory of Gröningen, received the malcontents of the united parties, and therefore called themselves emphatically the *an-*

cient *Flemingians*, or the ancient *Frieslanders*; but, by their adversaries, they were denominated the *Dompelers*, i. e. *Dippers*, because some of their churches used, in baptism, the three-fold immersion of the whole body. The other Anabaptists, on the contrary, regarded the sprinkling of the head as sufficient. Beyond Friesland, though not numerous, they spread to Lithuania and Dantzic. The Anabaptists in Galicia, a part of the ancient Moravia, who were divided, on account of their dress, into Buttoners (those who buttoned their clothes) and Pinners (those who used wire pins instead of buttons, and wore long beards), and comprehended about 24 families of the simple country-people, agreed with the Uke-Walists in maintaining the ancient doctrines and strict exercise of excommunication, and were distinguished for purity of morals. The ancient Flemingians, or the strictest sect of Anabaptists, persevere firmly in the ancient doctrines and practices of the sect. They reject the word *person*, in the doctrine of the Trinity, and explain the purity of the human nature in Christ, according to Menno, by saying, that he was created out of nothing by God, in the womb of Mary, although he was nourished by the blood of the mother. They view the baptism of their own party as alone valid, and practise the washing of feet, as an act commanded by Christ, not only towards travellers of their own party, like the Pure, but even in religious assemblies. Like Anabaptists in general, they view as improper, oaths, the discharge of civil offices, and all defence of property, liberty or life, which requires violence against their fellow-men. Hence they were formerly called, without distinction, the *unarmed Christians*. Only in this particular, and in church-discipline, are the ancient Flemingians more strict than the other Anabaptists. Immorality, the bearing of arms, marriage with a person out of their church, extravagance in dress or furniture, they punish by excommunication, without *gradus admonitionis*, and extend their discipline to domestic life. Those of Dantzic excluded persons who had their portraits painted, as a punishment for their vanity. In general, they strive to imitate, with the utmost exactness, the simplicity and purity, and the democratic government, of the earliest apostolic church, the restoration of which was originally the object of every Anabaptist. Hence they appoint their teachers by a vote of the whole church, forbid them to

enjoy any political office, and place but little value on learning. In modern times, it is true, they have gradually remitted their severity, and given up, in particular, the rebaptism of proselytes from other Anabaptist sects, while Christians, who have only been baptized in infancy, are admitted into any sect of the Anabaptists only after rebaptism. The Flemingians, Frieslanders and Germans, who had united, 1649, and at first belonged also to the Pure, gradually sided with the moderate party, with which they are now reckoned. —A division took place in the general church of the united Waterlanders, Flemingians, Frieslanders and Germans, in 1664, on account of the favor with which a part of them regarded the doctrines of the Remonstrants. Galenus Abrahamssohn, of Haen, a learned physician and teacher of the Anabaptists, of a gentle disposition and distinguished talents, was the leader of this new party, which was called, after him, the sect of the *Galenists*. He maintained that sound doctrine is less decisive of Christian worth than a pious life; and, therefore, church-communion should be refused to no virtuous person, believing in the Scriptures. But he betrayed, by these opinions, his Socinian views of Christ and the Holy Ghost. Samuel Apostool (also a physician and teacher of the church) and the orthodox party in it, declared themselves opposed to such innovations, and determined to maintain their ancient faith and discipline. — Besides the branches of the ancient Flemingians, or the proper Pure, described above, there are now two leading parties of Anabaptists, — the Apostoolians, who, from their attachment to the ancient confessions, founded on the doctrines of Menno, are called *Mennonites*, in a more limited use of that word; and the Galenists, who are likewise styled *Remonstrants* and *Arminian Baptists*, after Arminius, the founder of the Remonstrants. The Mennonites, as they belong to the moderate party, no longer maintain Menno's doctrine of the creation of Christ in the womb of Mary; they rebaptize no proselyte, and punish none but gross crimes with excommunication, and that not without previous warning. They do not require church-members utterly to avoid the excommunicated. They carefully prohibit oaths, military service, and the holding of civil offices. The confession of faith of the true Mennonites, composed by Cornelius Riss, one of their teachers, and published in German, at Hamburg, in 1776, corresponds, in almost

every point, with the doctrines of the Calvinist church.—The Remonstrants have departed the most widely from the faith and order of the ancient Anabaptists. They reject all symbolical books, and permit the most unrestrained reading; hence they have among them many Socinians. They tolerate, in the bosom of the church, those of a different faith, and receive Christians of all creeds, but only in a few congregations without rebaptism. They consider the Pure and Mennonites as brethren; seldom exclude members, except from the sacrament, and this not so frequently as the latter parties; permit military service, and the discharge of civil offices, and even an oath of testimony, and prohibit only the oath of promise. They allow of learning, and have erected a seminary at Amsterdam for the education of ministers, to which young men of the Mennonite party are also admitted. In Holland, the Anabaptists obtained toleration under William I., and complete religious liberty in 1626. There are now in that country 131 churches, and 183 teachers of all the parties of Anabaptists, of whom the majority belong to the Remonstrants, about one third to the Mennonites, and a few small congregations to the Pure. The Anabaptists in Germany, where they are most numerous, on the banks of the Rhine, in East Prussia, Switzerland, Alsace and Lorraine, consider themselves proper Mennonites. In the religious worship of all these parties, there is but a trifling difference from the forms of the Protestant service; but they more nearly resemble the Calvinists than the Lutherans. The Pure have elders or bishops who administer the sacraments, ministers who preach, and deacons or almoners. All these officers are chosen by the vote of the churches. The Mennonites have ministers or deacons, of whom the former are the proper pastors, and the latter only exhorters or preachers; but both are chosen by the ecclesiastical council or presbytery. The Remonstrants pursue a similar course. In general, the Anabaptists still deserve the praise formerly bestowed upon them, of diligence, industry, order and purity of morals. Many of them, however, have become so accustomed to the manners of the world, that the peculiarities of this sect have gradually worn away, and the sect itself seems hastening to decay. The Baptists (q. v.) in England form a distinct sect, without any connexion with the successors of the ancient Anabaptists here described.

ANACHARSIS THE YOUNGER, a Scythian,

and brother of the king Saulus, was a lover of wisdom and of the sciences, and esteemed one of the seven wise men of Greece. The love of knowledge induced him to leave his barbarous country, and travel among the more civilized nations. In the time of Solon, he visited Athens, from whence he proceeded to other countries. After his return, the king put him to death, in order to prevent the introduction of the effeminate manners and worship of the Greeks, which was attempted by A. (See *Voyage du jeune Anacharsis, par Barthélémi*; see also the translation, *Travels of Anacharsis the Younger*.)

ANACHORETS, or ANCHORETS, in ecclesiastical history, were a celebrated class of religious persons, who generally passed their lives in cells, from which they never removed. Their habitations were, in many instances, entirely separated from the abodes of other men, sometimes in the depth of wildernesses, in pits or caverns; at other times, several of these individuals fixed their habitations in the vicinity of each other, when their cells were called by the collective name of *laura*; but they always lived personally separate. Thus the *laura* was distinguished from the *canobium* or convent, where the monks lived in society on a common stock; and the anachoret differed from a hermit, although his abode was frequently called a *hermitage*, inasmuch as the latter ranged at liberty, while the former rarely, and, in many instances, never, quitted his cell. But a convent was sometimes surrounded by a *laura*, to which the more devout or the more idle of the monks would ultimately retire. Paul the Hermit is said to have been the first person who devoted himself to this kind of solitude. In all ages and in all countries, retirement from the world has been considered as facilitating the attainment of a virtuous life, as adding strength to strong characters, and enabling the mind to follow out great ideas without interruption. The prophets prepared themselves in solitude for their tasks; the Pythagoreans, Stoics, Cynics and Platonists recommend the self-denial and the quiet happiness of the solitary sage. Vasari calls solitude the delight and school of great minds. In many parts of the East, where a sombre religion throws over life a melancholy shade, it has been thought, from time immemorial, a religious act to quit forever the busy world, and even to add bodily pain to the melancholy of solitude. This spirit, which still prevails in the East, passed over, with many other Ori-

ental ideas, doctrines and customs, to the early Christians, and the state of the world, in the beginning of the Christian era, was peculiarly fitted to favor its growth. The continual prevalence of bloody wars and civil commotions, at this period, must have made retirement and religious meditation agreeable to men of quiet and contemplative minds. Accordingly, we find, in the first centuries of our era, very eminent and virtuous men among the anachorets, e. g., St. Augustin. This spirit, however, as might have been expected, soon led to fanatical excesses. All the horrid penances of the East were introduced among Christian hermits; and we find, at the close of the 4th century, Simeon Stylites passing 30 years on the top of a column, without ever descending from it, and finally dying there. Though we must needs pity such unhappy delusion, such a moral insanity, we cannot help acknowledging the strong power of will exhibited in this and many other instances of a similar kind. In fact, the spirit of retirement and self-torment raged like an epidemic among the early Christians in the East. In Egypt and Syria, where Christianity became blended with the Grecian philosophy, and strongly tinged with the peculiar notions of the East, the anachorets were most numerous; and from those who lived in cells, in the vicinity of a church (such as Moore describes in the Epicurean), the convents of a later period sprung, which were filled with inmates anxious to escape from the tumult and bloodshed, which marked the beginning of the middle ages. Early in the 7th century, the councils began to lay down rules for the order of anachorets. The Trullan canons say—"Those who affect to be anachorets shall first, for 3 years, be confined to a cell in a monastery; and if, after this, they profess that they persist, let them be examined by the bishop or abbot, let them live one year at large, and, if they still approve of their first choice, let them be confined to their cell, and not be permitted to go out of it but by the consent and after the benediction of the bishop, in case of great necessity." Frequently, at this period, the monks of various abbeys would select from among them a brother, who was thought to be most exemplary in his profession, and devote him to entire seclusion, as an honor, and to give him the greater opportunity of indulging his religious contemplations. In Fosbrook's Monachism, (4to., 1817), the ceremony by which an anachoret was consecrated to seclusion from the

world is described at length. The cells in which the anachorets lived were, according to some rules, only 12 feet square, of stone, with 3 windows. The door was locked upon the anachoret, and often walled up. The cell which is said to have been occupied by St. Dunstan, at Glastonbury, was, according to Osborn, in his life of that monk, not more than 5 feet long, 2½ feet broad, and barely the height of a man. Here the recluse passed his time in ingenious self-torture; e. g. in eternal silence, heavy chains, severe flagellations, singing psalms in cold water during winter nights, &c. *Tantum religio potuit suadere malorum!* This species of devotion, originally introduced, as we have said, from the warm climate of the East, found many more adherents in the south of Europe than in the north. With the revival of science, and the consequent diffusion of more liberal views, the strictest kind of anachoretism have almost entirely disappeared. Few men now retire to any seclusion more strict than that of a convent. Some persons, who pass a solitary life in the neighborhood of Rome, call themselves *anchorites*; but in India, the practice still prevails in all its severity.

ANACLETUS; two popes of this name. The first is said to have suffered death as a martyr, A. D. 91. All the other stories respecting him, e. g., that he divided Rome into 25 parishes, are uncertain.—The second, the grandson of a baptized Jew, at first called *Peter de Leon*, was a monk in Clugny, a cardinal and papal legate in France and England, and, in 1130, competitor for the papal chair, against Innocent II. Rome, Milan and Sicily were on his side, and Roger of Sicily received from him the royal title. He also maintained himself against Lothaire II, and died 1138.

ANACOLUTHON, in grammar and rhetoric; a want of coherency. This often arises from want of attention on the part of an orator or author. Such an omission may proceed from passionate feeling, and the anacoluthon may then become a beauty. Many anacolutha are peculiar to certain languages.

ANACREON, whom the Greeks esteem one of their 9 greatest lyric poets, was born at Teos, in Ionia, and flourished about 500 B. C. Polycrates, king of Samos, invited him to his court, and bestowed on him his friendship. Here A. composed his songs, inspired by wine and love. After the death of his protector, he went to Athens, where he met with the most distinguished reception from

With the ancients, *analecta* signified a servant, whose business it was to gather up what fell from the tables, at meals, as the pavements of the Roman floors sometimes were too finely inlaid to admit of sweeping.

ANALOGY originally denotes a relation, similarity or agreement of things in certain respects. The knowledge which rests merely on this relation is called *analogical*. The conclusion deduced from the similarity of things in certain respects, that they are similar, also, in other respects, is called, in logic, an *analogical conclusion*, and amounts only to a probability. This reasoning is applied to the explanation of authors (*analogia interpretationis*), and particularly to the interpretation of the Holy Scriptures, in which consistency of doctrine is taken for granted (*analogia fidei*). It is also used in the application of the laws, to form a judgment, in any particular case, by a comparison of former decisions in similar cases. In practical medicine, it is used in the application of remedies.—A great part of the principles of experimental philosophy are established by inferring a further uniformity from that which has been already settled.—In grammar, by analogy is meant a conformity in the organization of words.—In mathematics, it is the similitude of certain proportions.—Newton gives analogy the second place amongst his laws of philosophizing, and may be said to have established some of the most characteristic parts of his system, as arising out of the doctrine of gravitation, on its sober and patient use. In fact, analogical reasoning is essential in inductive philosophy, though it must be used with caution. The history of philosophy shows innumerable instances of the wildest errors, as well as of the sublimest discoveries arising from its application. The modern philosophy of Germany has suffered much in point of correctness and clearness, from several bold speculators, led away by fancied analogies between the moral and physical world; though it cannot be denied, that much of the progress of that nation in philosophical investigations is due to the use of the same instrument.

ANALYSIS, in philosophy; the mode of resolving a compound idea into its simple parts, in order to consider them more distinctly, and arrive at a more precise knowledge of the whole. It is opposed to *synthesis*, by which we combine and class our perceptions, and contrive expressions for our thoughts, so as to repre-

sent their several divisions, classes and relations. *Analysis* is regressive, searching into principles; *synthesis* is progressive, carrying forward acknowledged truths to their application.—Analysis, in mathematics, is, in the widest sense, the expression and development of the functions of quantities by calculation. There are two ways of representing the relations between quantities, to wit, by construction, and by calculation. Pure geometry determines all magnitudes by construction, i. e., by the mental drawing of lines, whose intersections give the proposed quantities; analysis, on the contrary, makes use of symbolical formulae, called *equations*, to express relations. In this widest extent of the idea of analysis, algebra, assisted by literal arithmetic, appears as the first part of the system. Analysis, in a narrower sense, is distinguished from algebra, inasmuch as it considers quantities in a different point of view. While algebra speaks of the known and unknown, analysis treats of the unchanging or constant, and of the changing or variable. The algebraic equation, $x^2 + ax - b = 0$, for example, seeks an expression for the unknown x by means of the known a and b ; but the analytical equation, $y^2 = ax$, expresses the law of the formation of the variable y , by means of the variable x , together with the constant a .—In its application to geometry, analysis seeks by calculation the geometrical magnitudes for an assumed or undetermined unit. The analysis of the ancients was exhibited only in geometry, and made use only of geometrical assistance, whereby it is distinguished from the analysis of the moderns, which, as before said, extends to all measurable objects, and expresses in equations the mutual dependence of magnitudes. But analysis and algebra resemble each other in this, that both, as is shown more fully in the article on algebra, reason in a language, into the expressions of which certain conditions are translated, and then, according to the rules of the language, are treated more fully, in order to arrive at the result. Analysis, when considered in this light, appears to be the widest extent of the province of this language. Analysis, in the more limited sense, is divided into lower and higher, the bounds of which run very much into one another, because many branches of learning are accessible in both ways. While we comprise in lower analysis, besides arithmetic and algebra, the doctrines of functions, of series, combinations, logarithms and curves, we

comprehend in the higher the differential and integral calculus, which are also included in the name *infinitesimal calculus*; the first of which the French consider as belonging, in a wider sense, to the *théorie des fonctions analytiques*.—A good account of the ancient analysis is given by Pappus of Alexandria, a mathematician of the 4th century, in his *Collection of Geometrical Problems*,* in which there is also a list of the analytical writings of the ancients. What progress was made after the destruction of the Roman empire, particularly by the Arabians, in algebraical, and, as interwoven with them, in analytical inquiries, has been related in the article on algebra. Newton and Leibnitz (q. v.) invented the above-mentioned infinitesimal calculus. After them, Euler and the brothers Bernoulli (q. v.) labored with splendid success for the further improvement of mathematical analysis; and, in later times, d'Alembert, Laplace, Lagrange, &c. have raised it still higher. Hindenburg (q. v.) is the inventor of the analysis of combinations. We have not room here to go into detail with respect to the other analytical doctrines.—Euler's *Introductio in Analysin Infinitorum*,† Lausanne, 1748, 2 vols. (new ed., Leyden, 1797) still continues one of the most important works, in regard to the analysis of finite quantities. In close connexion with this stands the same author's *Institutiones Calculi differentialis*, Petersburg, 1755, 4to. Lagrange's *Théorie des Fonctions Analytiques* (new ed., Paris, 1813, 4to.) is, on account of the depth of its views and its many valuable applications to geometry and mechanics, a valuable work for the study of the connexion between the analysis of finite quantities, and the so named (though, indeed, here considered in a very different light) calculation of infinities. As this work cannot be understood without a good acquaintance with general and very abstract calculations, we would connect with it the same author's *Leçons sur le Calcul des Fonctions* (new ed., Paris, 1806). Arbogast's *Calcul des Derivations*, Strasbourg, 1800, 4to., is new in its views of the analysis of finite quantities. The most excellent of the old works on the integral calculus is Euler's *Institutiones Calculi Integralis*, Petersburg, 1768—1770, 3

* There is a Latin translation of it by Commandinus:—*Mathemat. Collationes, Commentariis illustratæ*, Bonn, 1659, folio. The Greek text is not published.

† It has this title on account of the application which is here made of the idea of the infinite, and its connexion with the higher analysis.

vols., 4to. The present state of the integral calculus, after the improvements of the French analysts, may be learned from Lacroix's *Traité du Calcul différentiel et du Calcul intégral*, Paris, 1797 and seq., 3 vols., 4to. (There has since appeared a new edition.)—For beginners, we recommend Pasquich's *Mathematical Analysis*, Leipsic, 1791, and, for more advanced students, the same author's *Elementa Analyseos sublimioris*, Leipsic, 1799, 4to. Nürnberg's *Exposition of the Formation of all derived Functions*, Hamburg, 1821, treats this subject in a new point of view. For A. in chemistry, see *Chemistry*.

ANAMORPHOSIS; a perspective projection of any thing, so that it shall appear at one point of view deformed; at another, an exact representation.

ANAPÆST. (See *Rhythm*.)

ANANAS, in botany; a species of *bromelia*, commonly called *pine-apple* (q. v.), from the similarity of its shape to the cones of firs and pines.

ANAPHORA (Greek, ἀναφορά, repetition); a rhetorical figure, which consists in the repetition of the same word or phrase at the beginning of several successive sentences. A similar repetition at the end of sentences is called *epiphora*, or *homoteleuton*. *Anaphora* is sometimes used as the general name for both figures; the former is then called *epanaphora*. The *anaphora* aims to increase the energy of the phrase, but is often rendered ineffectual by too frequent repetition.

ANASTASIOS I, emperor of the East, succeeded Zeno, A. D. 491. He distinguished himself by his moderation towards different Christian sects, whose quarrels at that time disturbed the peace and safety of the Byzantine empire. Moreover, he repealed a very heavy tax, called *chrysargyrum*, and prohibited the fighting with wild beasts. He died A. D. 518, after a reign of 27 years.—A. II was another emperor of the East, dethroned by Theodosius, in 719, and afterwards put to death.—A., surnamed *Bibliothecarius*, a Roman abbot, keeper of the Vatican library, and one of the most learned men in the 9th century, assisted, in 829, at the 4th general council, the acts and canons of which he translated from the Greek into Latin. He also composed the lives of several popes, and other works, the best edition of which is that of the Vatican, 4 vols. fol., 1718.

ANATHEMA (cursed by God) is the form of excommunication from the church. Hence, to pronounce the *anathema*, or to *anathematize*, means, in the Roman Cath-

olic church, to excommunicate the living from the church, and the dead from salvation. How important an instrument of spiritual power the anathema was, in the hands of the popes, in the middle ages, how much disorder they gave rise to, and how little they have been regarded in modern times, is matter of history. Napoleon died in excommunication, and yet a priest attended him, and the circumstance is hardly mentioned.—Originally, the word was applied to various persons and things separated from ordinary life or uses to the will of a real or supposed deity, a gift hung up in a temple, and dedicated to some god, a votive offering; but, as the word is derived from ἀνατίθημι (*to separate*), it has been, in later ages, used for *expulsion, curse*. The Greek and Roman Catholic churches both make use of the anathema. In the latter, it can be pronounced only by a pope, council, or some of the superior clergy. The subject of the anathema is declared an outcast from the Catholic church, all Catholics are forbidden to associate with him, and utter destruction is denounced against him, both body and soul. The curse is terrible. Mere excommunication is less severe. The heretic has also to *anathematize* his errors. Once in every year, the pope publicly repeats the anathema against all heretics, amongst whom the Protestants, Luther, &c., are mentioned. When councils declare any belief heretical, the declaration is couched in the following form: *Si quis dixerit, &c., anathema sit*, which often occurs in the decisions of the councils. (See *Excommunication*.)

ANATOMICAL PREPARATIONS. Dead bodies and parts of bodies, notwithstanding their tendency to decomposition, can be preserved by art. It is important to the physician, for the determination of the medical treatment proper in similar cases, to preserve the organs, which have been attacked by diseases, in their diseased state, and, as a counterpart, the same organ in its sound condition. The anatomical preparations of healthy parts may serve for instruction in anatomy. Preparations of this sort can be preserved either by drying them, as is done with skeletons, or by putting them into liquids, e. g., alcohol, spirits of turpentine, &c., as is done with the intestines and the other soft parts of the body, or by injection. The injection is used with vessels, the course and distribution of which are to be made sensible, and the shape of which is to be retained. The beginning of the vessel, e. g., the aorta among the arteries,

is filled, by means of a syringe, with a soft, colored mass, which penetrates into all, even the smallest branches of the vessels, dries them, and makes them visible. The finest capillary vessels may be thus made perfectly distinguishable. The infusion usually consists of a mixture of soap, pitch, oil and turpentine, to which is added a coloring substance; for instance, red for the arteries, green or blue for the veins, white for the lymphatic vessels. For very fine vessels, e. g., for the absorbing lymphatic vessels, quicksilver is preferred, on account of its extreme divisibility. Dried preparations are the bones, cleared of all the soft parts by boiling, and bleached, or any of the soft parts, covered with a protecting but transparent varnish; e. g., muscles, intestines, &c. The quicker the drying of the organs destined for preparation can be effected, the better they will be preserved. For the purpose of preserving them, alcohol is used; the more colorless, the better. Spirits of wine, distilled with pepper, or very strong pimento, are also used, together with some muriatic acid. Washing with acids (lately, pyro-ligneous acid has been used) gives to the preparation sometimes firmness, and sometimes whiteness. Washing is particularly necessary with bones which are in a state of putrefaction. Muscles are usually tanned; and all that is in danger of being eaten by worms, or injured by a damp atmosphere, is covered with a suitable varnish. The preparations treated thus are fixed upon a solid body, or in a frame. Preparations preserved in liquids are usually kept in transparent glasses, hermetically sealed, to secure them from the destroying influences of dust, air, humidity, heat, cold, the sun, insects, &c. Damaged preparations can seldom be perfectly restored.

ANATOMY (Greek, ἀνατέμνειν, *to dissect*); the art of dissection; that of brutes is frequently called *zootomy*: Anatomy is a part of natural history, and is one of the most important branches of the science of medicine. The dissection of the human body was but little practised by the ancients. The old Egyptians held it in great abhorrence, and even pursued with stones those men, who, in embalming the dead, were obliged to cut open their bodies. The Greeks were prevented by the principles of their religion from studying anatomy, since these required them to bury the bodies of the deceased as soon as possible. Even in the time of Hippocrates, anatomical knowledge was imperfect, and was probably derived from the

dissection of animals; the skeleton, however, was better known. When, in later times, under the Ptolemies, Alexandria in Egypt became the seat of the arts and sciences, anatomy was also brought to a high degree of perfection, by Herophilus of Chalcodon, 300 B. C., and by Erasistratus of Chios. According to the testimony of Celsus, the former obtained permission to open living criminals. He enriched anatomy with many important discoveries; e. g., respecting the brain, the functions of the nerves, the blood-vessels of the mesentery, which go to the liver, &c. Erasistratus determined many facts in the construction of the brain with greater distinctness, and, among other improvements, gave to the valves in the *vena cava* the names which are yet used. In later times, the study of anatomy was again neglected, particularly by the empirics. Galen, educated in Alexandria (born A. D. 131), collected all the anatomical knowledge of his contemporaries, and of earlier physicians, but seems not to have much enriched human anatomy himself, as he was principally occupied with the dissection of animals, and only applied his observations on them to the structure of the human body. Among the Arabians, anatomy was not practised; it was forbidden by their religion. Their physicians, therefore, took their anatomical information merely from the writings of the Greeks, particularly from those of Galen. Thus anatomy was checked in its progress for several centuries. Finally, in the fourteenth century, individuals arose, who, not satisfied with the anatomical instruction of the age, ventured to make investigations of their own. The superstitious fear of the dissection of human corpses, which had hitherto prevailed, appeared to subside by degrees, when a philosophical spirit gave birth to more liberty of thought. Mondini di Luzzi, professor at Bologna, first publicly dissected two corpses, in 1315, and soon afterwards published a description of the human body, which for a long time was the common compendium of anatomy, though many errors were contained in it. From this time it became customary, in all universities, to make public dissections once or twice a year. Anatomy, however, made but slow progress, since the dissections were intended only as illustrations of the writings of Galen and the compendium of Mondini. Montagnana alone, professor at Padua in the 15th century, could boast of having performed 14 dissections, which was then a great

number. In the 16th century, there were many celebrated anatomists, by whose influence the study of anatomy became more general. Fallopi, Eustachi, Vesal, Varol and many others enriched anatomy with new discoveries. In the 17th century, there were likewise many famous anatomists, and many discoveries were made; thus Harvey discovered the circulation of the blood, Wirsung the pancreatic duct, Schneider the mucus membrane, &c. In the 18th century, Pacchioni, Valsalva, Keil, Lancisi, Ruish, Haller, Boerhaave, Vicq-d'Azir and others distinguished themselves by their skill in anatomy. Meckel, Soemmering, Loder, Reil, Bichat, Rosenmüller, are worthy to be mentioned as renowned anatomists of later times. According to the parts of the body described, the different divisions of anatomy receive different names; as, *osteology*, the description of the bones; *myology*, of the muscles; *desmology*, of the ligaments and sinews, &c.; *splanchnology*, of the viscera or bowels, in which are reckoned the lungs, stomach and intestines, the liver, spleen, kidneys, bladder, pancreas, &c. *Angiology* describes the vessels through which the liquids in the human body are conducted, including the blood-vessels, which are divided into arteries and veins, and the lymphatic vessels, part of which absorb the chyle from the bowels, while others are distributed through the whole body, absorbing the secreted humors, and carrying them back into the blood. *Neurology* describes the system of the nerves and of the brain; *dermology*, of the skin. Comparative anatomy is the science which compares the anatomy of different classes or species of animals; e. g., that of man with quadrupeds, or that of fish with quadrupeds. It is a science which has greatly increased our knowledge of nature, and affords one of the most interesting subjects of study. Among anatomical labors are particularly to be mentioned the making and preserving of anatomical preparations. (q. v.) By preparing, we mean the separating of any organ, or of an entire system, or of single parts, from all the other parts of the body. Thus, for instance, the whole system of bones, cleared from all the adherent muscles, tendons and other parts, is prepared, and called the *skeleton*; so, too, the muscles, nerves, intestines, their vessels and distributions are laid open in order to examine their peculiar construction. These labors require considerable anatomical knowledge.

ANATOMY OF PLANTS. (See *Plants, anatomy of*.)

ANATRON; the scum which swims upon the molten glass in the furnace, sometimes called *sal vitri*, which, when taken off, melts in the air, and coagulates into common salt. It is also that salt which gathers upon the walls of vaults; likewise the same with *natron*. (q. v.) Anatron is also a compound salt, made of quick-lime, alum, vitriol, common salt and nitre, used as a flux to promote the fusion and purification of metals. It is also used for the *terra saracenicæ*.

ANAXAGORAS, one of the principal Ionic philosophers, born at Clazomenæ, in Ionia, in the first year of the 70th Olympiad (500 B. C.), of rich and respectable parents, devoted himself to the study of philosophy, under Anaximenes of Miletus, or, according to some, under Hermotimus, his countryman. At the age of 20 years, he set out on his travels, visited Egypt, and all the countries where the sciences flourished, and finally settled at Athens. There he formed an intimacy with Pericles, and numbered among his disciples the most respectable citizens; e. g., Archelaus (the natural son of Perdiccas, king of Macedonia, who himself reigned 9 years) and Euripides. A profound study of the natural sciences enabled him to explain the eclipses of the sun and moon, earthquakes, and similar phenomena; but, by the intrigues of his enemies, he became suspected of blasphemy, and, in consequence of this accusation, was obliged to leave Athens, in 431. He went to Lampsacus, where he died after three years, 72 years old. The principle of A. was, "from nothing comes nothing." He adopted, therefore, the idea of a chaos, and, as the primary element of all bodies, a kind of atoms, of the same nature as the bodies which they formed. These atoms, in themselves motionless, were, in the beginning, put in motion by another equally eternal, immaterial, spiritual, elementary being, which he called *Νοῦς* (Intelligence). By this motion, and by the separation of the dissimilar particles, and the combination of those of the same nature, the world was formed; the earthy bodies sunk down, whilst the æther or fire rose and spread in the upper regions. The stars, however, were, according to him, of earthy materials, and the sun a glowing mass of stone, about as large as the Peloponnesus. The milky way he thought to be, like the rainbow, the reflection of light. The earth was, according to him, flat; the moon, a dark, inhabitable body, receiving its light from the sun; the comets, wandering stars. He contended that the

real existence of things, perceived by our senses, could not be demonstrably proved and considered reason as the source of truth. On account of this principle, many have regarded him as the first theist among the philosophers. Archelaus of Athens was his disciple.

ANAXIMANDER, son of Praxiades, a disciple of Thales, and an original thinker was born at Miletus in the 42d Olympiad (610 B. C.) His chief study was mathematics. He discovered, or taught, at least, the inclination of the ecliptic, and determined the solstices and equinoxes, by means of a dial (gnomon). He first used figures, to illustrate the propositions of geometry. He was also the first who attempted to sketch the outlines of lands and seas on a globe, and made a celestial globe, for the explanation of his system of the universe. Yet his statements are not to be entirely relied upon. His ideas concerning the first principle of things are so obscurely stated, that they cannot well be ascertained. His system seems to have been that infinity, *τὸ ἀνείκον*, is the origin of all existence; from which all emanates, and to which every thing returns. He has not, however, defined the nature of this eternal, incorruptible, original matter, the parts of which are variable, the whole unchangeable. The number of worlds is, according to him, infinite. The firmament is composed of heat and cold, the stars of air and fire. The sun occupies the highest place in the heavens, has a circumference 28 times larger than the earth, and resembles a cylinder, from which streams of fire issue. When its opening is obstructed, it appears eclipsed. The moon is, according to him, likewise a cylinder, 19 times larger than the earth; its inclination produces the phases, its entire revolution the eclipses. Thunder and lightning are productions of the wind, compressed within the clouds. The earth has the shape of a cylinder, and is placed in the midst of the universe, where it remains suspended.—He died in the 58th Olympiad (546 B. C.), 64 years of age.

ANAXIMENES of Miletus flourished about the 56th Olympiad (556 B. C.) He was a disciple of Anaximander, from whose doctrines he, however, deviated. According to him, the air (*ἀήρ*) is the infinite, divine, perpetually active, first principle of all things. He taught that the exterior circumference of the heavens consisted of earth; that the stars were solid bodies, surrounded by fire; that the sun, by whose course alone the seasons

are determined, was flat, as well as the earth, which rests upon the air. Diogenes of Apollonia carried his doctrine still further.

ANBERT KEND (the cistern of the waters of life); a celebrated book of the Brahmins, wherein the Indian religion and philosophy are contained. It is divided into 50 beths or discourses, each consisting of 10 chapters. It has been translated into Arabic, under the title of *Morat al Maani*; i. e., the marrow of intelligence.

ANCESTORS. All nations, in any way civilized, have paid respect to the memory of their ancestors. Some have gone so far as to offer them religious homage. All the Asiatic nations are proud of a long line of ancestors. The Bible abounds in genealogies, and modern travellers state, that the same pride of descent prevails among the Arabians, Persians, &c. Men of rank in the East are frequently entertained with songs in praise of their ancestors,—a custom which prevailed in Greece and Rome, and throughout Europe in the middle ages. Esteem for parents and ancestors is so natural to all mankind, that low people, throughout the world, if they happen to quarrel, as the readiest means of insulting the opposite party, attack the honor of his mother, the honesty of his father, or the general character of the family from which he is descended, as the writer has had occasion to remark in very different countries. There is hardly any age which does not furnish many instances, some even in the shape of political institutions, of an erroneous transfer to a man's posterity, of the honor belonging to himself, by which a natural and laudable feeling has been made the source of much injustice, and moral and political confusion. Another very common fault, into which mankind constantly fall, is that of suffering reverence felt for the persons of ancestors to produce an undue respect for their knowledge and wisdom,—an error which arises, perhaps, partly from the idea of age and experience attached to that of ancestors. The age and experience of living ancestors demand our respect, and the same feeling is transferred to the dead and to former ages, which, in point of fact, were younger and less experienced than we. It is therefore ridiculous to see a numerous party, e. g., in France, constantly recommend the example of their ancestors (even of those who lived in ages when hardly any thing in politics was settled), as the only model to be imitated.

Individuals and whole nations act as if wisdom belonged only to the dead. The true feeling of respect to ancestors is that expressed by a contemporary orator, on the 200th anniversary of the settlement of his native city: "Let us not act as they did, but as they would have acted to-day."—The Egyptians are known to have paid particular attention to the bodies of their deceased relations; but no nation ever revered their ancestors in such degree as the Chinese, whom Confucius directed to offer them sacrifice. Filial love, in fact, is one of the essential elements of the Chinese religion, politics and domestic life. Sir George Staunton (see his *Embassy to China*, 3 vols. 8vo.) gives several instances which support this opinion. The inhabitants of New England are noted for the esteem in which they hold their ancestors, without, however, being blind to their faults.

ANCHISES, son of Capys, and great-grandson of Tros. Venus, captivated by his beauty, appeared to him on mount Ida (according to some, near the river Simois), in the shape of a Phrygian shepherdess, and bore him *Æneas*. His son carried him off on his shoulders at the burning of Troy, and made him the companion of his voyage to Italy. He died during the voyage, in Sicily. According to other accounts, Jupiter killed A. with a thunder-bolt, because, when excited with wine, he betrayed the secret of his intimacy with Venus.

ANCHOR, in navigation, is an important, strong and heavy instrument of iron, consisting of a shank having at one end a ring, to which the cable is fastened, and, at the other end, two arms or flukes, with barbs or edges on each side, intended to be dropped from a ship into the bottom of the water, to retain her in a convenient station in a harbor, road or river. The most ancient anchors are said to have been of stone, and sometimes of wood, to which a great quantity of lead was usually fixed. In some places, baskets full of stones, and sacks filled with sand, were employed for the same use. All these were let down by cords into the sea, and, by their weight, stayed the course of the ship. Afterwards, they were composed of iron, and furnished with teeth, which, being fastened to the bottom of the sea, preserved the vessel immovable; whence *ὀδοντες* and *dentes* are frequently taken for anchors in the Greek and Latin poets. At first, there was only one tooth, whence anchors were called *ερεβότομοι*; but, in a short time, the second was added

by Eupalamus, or Anacharsis, the Scythian philosopher. The anchors with two teeth were called ἀμφιβόλοι, or ἀμφιστομοί, and, from ancient monuments, appear to have been much the same with those used at present, only the transverse piece of wood upon the handles (the stocks) is wanting in all of them. Every ship had several anchors, one of which, surpassing all the rest in bigness and strength, was peculiarly termed ἱερὰ, or *sacra*, and was never used but in extreme danger; whence *sacram anchoram solvere* is proverbially applied to such as are forced to their last refuge.—Large ships, at the present day, carry several anchors, with two flukes each. 1. The *sheet* anchor is the largest, and is only used in case of violent storms. 2. Two bower anchors, viz. the *best bower* and *small bower*, so called from their situation at the bows. 3. The *stream* anchor, the *kedge*, and *grappling*, or *grapnel*. The three last are often used for moving the ship from place to place, in a harbor or river.—The anchor is said to be *a-peak*, when the cable is perpendicular between the hawse and the anchor; it is said to *come home*, when it does not hold the ship; it is said to be *foul*, when the cable gets hitched about the flukes. To *shoe* an anchor, is to fix boards upon the flukes, so that it may hold better in soft bottom.—*Riding at anchor* is the state of the vessel when moored or fixed by the anchor. *Dropping* or *casting anchor* is letting it down into the sea. *Weighing anchor* is raising it from the bottom.—The anchor, as every body knows, is the symbol of hope.

ANCHORET. (See *Anachoret*.)

ANCHOVY; a small fish of the *clupea* or herring genus, constituting, in Cuvier's classification, a subgenus, under the title of *engraulis*. The common anchovy (*clupea enchrasicolus*, L.) is about a span long, brownish on the back, with argentine belly and flanks. It differs from the other herrings in having the ethmoid and nasal bones prolonged to a point, beneath which their very small intermaxillaries are attached; their maxillaries are very straight and long; the mouth and throat very wide; both jaws well furnished with teeth, and the gills more open than in other species.—The anchovy is found in the greatest abundance in the Mediterranean, on the coasts of France, England, and Holland, whither they come in immense shoals, like the larger herrings, for the purpose of spawning. Nets of 40 fathoms long, and from 25 to 30 feet wide, are employed to take them; these

nets differ in nothing from those commonly used, except in having very small meshes.—The anchovy fishery, in the Mediterranean, is begun in the spring, and continues until the commencement of summer, and is especially carried on, in dark nights, by the aid of fires. The fishermen provide themselves with floats, upon which a fire of pine-knots is made, and these are placed, at different distances, over a very considerable extent of sea. The anchovies approach these lights, and collect near them in vast multitudes, when the fishermen silently surround them with their nets, extinguish the fire, and begin to beat upon the water. The frightened fish immediately endeavor to make their escape, and, rushing against the net, are caught by the meshes, which, passing over their gills, neither allow them to advance nor retreat. The fishermen, as soon as the net appears sufficiently full, raise it, and remove the fish, and go to repeat their operations at the next light. The Dutch, on their coasts, make use of a sort of funnel-shaped trap of reeds, with a net attached to the bottom. This is fastened to a stake, at low-water, and, at every change of tide, is visited for the purpose of removing the anchovies, which generally fill the net. Nearly all the anchovies caught are immediately salted, because otherwise they spoil with great rapidity. The scales separate from the surface with so much ease, that it is a common notion that these fish are not possessed of this integument. The heads of the anchovies must be taken off, on account of their bitterness,—a quality which has obtained for this species the name of *enchrasicolus*, from a strange idea, that the gall-bladder was in the head. The intestines are removed, and the fish, after being washed, are packed in barrels like ordinary herrings, with layers of salt and fish alternately. A considerable difference is produced in the quality of anchovies by the sort of salt used, and the state of the pickle in which they are kept. The fishermen of Provence believe that the salt ought to be of a red color, which is generally caused by rust of iron, where salt has been prepared in iron vessels, but, for their use, is mostly caused by mixing a small quantity of ochre with the salt. They are very careful, also, not to change the pickle, merely supplying the loss, from leakage or evaporation, by adding water. These anchovies have a peculiar acrimony of taste, which is prized by epicures. They do not keep, however, so well as

those packed by the northern fishermen, which are cured with gray salt, and have the pickle changed as often as 3 times.—As an article of diet, anchovies recently caught are eaten dressed in a great variety of modes. Salted anchovies ought to be recent, white above and reddish below, and free from taint. The books of cookery exhibit numerous salads, sauces and relishes, of which anchovies form a part. A very favorite mode of using them is in anchovy-toast, made by spreading the flesh of the pickled anchovy over bread toasted brown. This is eaten as a provocative of thirst, by toppers, or as a stimulant to a languid appetite, by persons whose stomachs are enfeebled or dyspeptic from excesses. Like all other stimulants, however, they soon lose their efficacy in such cases, and become positively injurious.—The ancient Romans made use of a sauce celebrated under the name of *garum*, which is thought, by some writers, to have been prepared from the anchovy. We have made some investigations on this subject, and are led to the conclusion, that this sauce was prepared from the intestines, &c. of fish, but by no means of any one species. According to Pliny (lib. 31, cap. 3), it was originally prepared from the shrimp called *garum*. Subsequently, the sauce was made by macerating the intestines of fish in salt and water, until they became slightly putrescent, to which vinegar and parsley, chopped fine, or pounded, were added. As the anchovy was caught in such abundance in the Mediterranean, this fish was doubtless sometimes used for the preparation of the luxurious *garum*. Martial speaks of it as made from the *scombrus*, or mackerel, in the following words:—

Exspirantis adhuc scombri de sanguine primo,
Accipe fastosum, munera cara, garum.

Lib. xiii. Ep. cii.

How well it deserved the epithet *fastosum*, may be gathered from the statement of Pliny (lib. 31, cap. 8), in which he says, that two gallons of this *garum* sold for *singulis millibus nummorum*, or some thousands of sesterces.

ANCHYLOSIS; a stiffness or immobility of the joints. The existence of the disease is obvious to the eye. It is often connected with deformities of the limbs, and, in the anchylosis of the little bones of the ear, with deafness; in that of the joint of the lower jaw, with inability of chewing. The anchylosis may occasion the decaying of a limb, bleedings, aneurisms, &c., and may even become fatal. In the beginning of these diseases, the

patient usually suffers pain in the limbs, a more or less audible rustling in moving the joint affected, a feeling of weakness and inability of directing the limb as it could be done in a state of health. An anchylosis usually arises from several causes, and afflicts sometimes the whole body, at other times one limb only. The anchylosis is sometimes constitutional; old people are more subject to it than young, and the male sex than the female. The real anchylosis is incurable. Excessive indulgence in animal love may contribute to this disease; but it is, for the most part, the result of inflammation in the membrane lining the joints.

ANCILLON, Jean Pierre Frederic; born at Berlin, April 30, 1766; a man much esteemed in Prussia, known by his writings, particularly by his *Tableau des Révolutions du Système Politique de l'Europe, depuis le 15me Siècle*; 4 vols, second edition, 1824. He has published several political essays, all of which display attachment to the modern doctrine of *legitimacy*, yet with a slight tincture of liberalism.—He writes sometimes in French, at other times in German. He was formerly minister of the French Protestant church in Berlin, but is now employed in the department of foreign affairs.—David A., a Protestant minister, who fled from France after the revocation of the edict of Nantes, and died at Berlin, 1692, 75 years old, was an author of some merit, as was also his son Charles, who was historiographer to the king of Prussia, and died at Berlin, in 1715.

ANCONA, capital of the delegation, and of the former marquise of Ancona, lon. 13° 29' E., lat. 43° 38' N., on the gulf of Venice, the seat of a bishop, has 17,330 inhabitants, among whom are 5000 Jews. The city and its fine harbor are praised by the most ancient writers. This harbor was improved and beautified by Trajan; and the grateful citizens erected to him, in return, a triumphal arch of white marble, which is yet standing on the oldest mole. In 1732, A. was declared a free port, and, notwithstanding the frequent obstruction of the haven by mud, it is visited every year by more than 1100 vessels, and the commerce and manufactures of the city are considerable. A. has also a quarantine establishment. It was always a famous fortress; was conquered and destroyed repeatedly by the Romans, Goths, Lombards and Saracens; rose by its own resources from its ruins, and became a republic. It was, however, in 1532, taken by the pope, by surprise, and

annexed, together with its territory, to the papal dominions. The siege of this place by the Russians, Turks and Austrians, in 1799, was remarkable, because the Russian colors, first planted on the walls of A., were pulled down by the Austrian soldiers, which gave occasion to the unfortunate dissensions of the emperor Paul with the allies. Since 1815, the citadel only has remained fortified.

ANCUS MARTIUS, the fourth king of Rome, succeeded Tullus Hostilius, 640 B. C. (114 A. U.) and died 618 B. C. (136 A. U.) He built the harbor at Ostia, the mouth of the Tiber. Rome, therefore, must have had, as early as that period, some navigation, even if it did not amount to more than a coasting trade. He revived the neglected observance of religion, and inscribed the laws respecting religious ceremonies on tables set up in the market-place. Ennius and Lucretius call him the *Good*. Virgil reproaches him with undue regard for popular favor, because he distributed the conquered lands among the citizens.

ANDA; a tree of Brazil, the wood of which is spongy and light, the flower yellow and large, and the fruit a gray nut, which encloses two kernels, of the taste of chestnuts, in a double rind. The fruit is said to be purgative. Oil is pressed from these kernels, with which the natives anoint their limbs. The rinds of the fruit, thrown into ponds, kill the fish.

ANDALUSIA (ancient *Betica*); a province of Spain, divided into Upper and Lower. Upper A. comprehends Grenada; Lower A. comprehends Jaen, Cordova and Seville. A. is the most western province of Spain, and is bounded N. by Estremadura and La Mancha; E. by Murcia; S. by the sea and the straits of Gibraltar; and W. by Portugal; 170 miles long, and 180 wide. It is, without doubt, one of the finest, the richest and most fertile parts of Spain, producing abundance of oil and grain, also honey, sugar, silk and wine. Its herds of cattle are numerous, and its horses are esteemed the best in the kingdom. The inhabitants are descended, in part, from the Saracens, and differ much from the natives of Castile, and other parts of Spain, in their physiognomy and character. Pop., in 1787, 788,153. Its chief cities are Seville and Cadiz. (See *Grenada*.)

ANDANTE (*music*) denotes a time somewhat slow, and a performance distinct and exact, gentle and soothing. Andantino stands between andante and allegretto, at least according to the common

notion; some assert that andantino implies a little slower motion than andante. The andante requires a delicate performance.

ANDES, called by the Spaniards *Cordilleras de los Andes*, are an immense chain of mountains, extending throughout South America from north to south, generally at the distance of about 150 miles from the western coast. They extend from cape Pílares, in the straits of Magellan, northwards to the isthmus of Darien. A mountainous ridge passes through the isthmus of Darien, dividing farther north into various branches, styled the *Cordilleras of Mexico*. To the north of Mexico the principal range takes the name of the *Rocky mountains*, and reaches to the Frozen ocean, the northern limits of the American continent. These are by many considered as parts of one continued range, but the term *Andes* is usually limited to the mountains in South America.—The Andes differ greatly in their general aspect and character, being in some parts blended together into an entire mass, and in others, divided into two or three distinct ridges. In Chili, they are about 120 miles in breadth, presenting numerous summits of prodigious height. To the north, they diverge in a straggling manner; and in Peru, they are formed into three irregular ridges, which continue to about lat. 6° S., where they are formed into a single chain. They divide again, in Quito, into two chains; and farther north, between lat. 2° and 5° N., they are formed into three parallel ridges, which are again blended together between lat. 6° and 7° N.—Between the two ridges in Quito, there is a plain from 5 to 6 leagues in breadth, of great fertility, well cultivated, and thickly settled, having populous towns, and though under the equator, yet, owing to its great elevation, which is about 9000 feet above the sea, it possesses a temperate and delightful climate.—The Andes are the highest mountains in America, and, next to the Himmaleh mountains, the most elevated in the known world. They are composed, in a great part, of porphyry, and abound in the precious metals. Many of them are volcanic, and there are numerous summits which are covered with perpetual snow. The medium height of the range, under the equator, may be estimated at about 14,000 feet above the level of the sea, while that of the Alps hardly exceeds 8000.—The following table exhibits some of the highest summits, with their elevation above the level of the sea.

	Feet.
Chimborazo,	21,441
Misté,	20,328
Disca Casada,	19,570
Cayamba Ourco,	19,388
Antisana,	19,149
Cotopaxi,	18,891
Altair,	17,256
Ilinissa,	17,238
Sangai,	17,136
Tunguragua,	16,500
Pichinea,	15,939

Mr. Pentland has recently asserted, that mount Nevado de Sorato is the highest mountain of America. He estimates its height at 25,200 feet. Its situation is in 15° 30' S. lat. The second in altitude he considers mount Illimani (Nevados de Illimani), in Paz, in Bolivia, or Upper Peru, 22 marine leagues S. E. of the city Paz, between 15° 35' and 16° 40' S. lat., and between 67° and 68° W. lon. The most northern peak of it he gives as 24,200 feet high. (See *Annales des Sciences*, xiv. 299.)—A lively idea of the character and grand features of the Andes may be formed from the accounts given in the celebrated Alexander von Humboldt's *Journey into the Equinoctial Countries of the New Continent*; which, at the same time, affords much scientific information on these remarkable mountains.—Good roads have been cut with great labor in the neighborhood of Chimborazo, one of which is 1000 miles in length; and similar labors of the ancient incas of Peru may be found throughout the province. Over the Rio Desaguadero, in Buenos Ayres, is a singular bridge, formed of ropes and rushes, attributed to Capac Yupanqui, the 5th inca.—The approach to the Andes from the western coasts has always been admired. The road leads through the most beautiful forests, the foliage of which exhibits the most various and lovely colors. As the traveller advances, an awful sublimity pervades the mind, and the wide interstices and tremendous chasms, together with cataracts that roll down the mountains from an amazing altitude, filling the distant view, overwhelm him with admiration.—The highest deserts of the Andes are in the north called *Paramos*, and in Peru, *Punas*; but so acute and peculiar is the cold air in these places, as rather to pierce the vitals than affect the exterior feelings. It is no uncommon circumstance to meet with the bodies of travellers who have perished in the cold, whose faces have the horrid appearance of laughter, owing to the contraction of the

muscles at the period of dissolution. The pine lingers last of the more stately tribes of vegetables, accompanied by a low species of moss. It is found 13,000 feet in altitude above the level of the sea. Numerous orders of the larger trees appear progressively in the space between the heights of 10,000 and 9000 feet. At the height of 9200 feet, is found the oak, which, in the equatorial regions, never descends below that of 5500. It is, however, said to be found in the neighborhood of Mexico, at the height of only 2620 feet. European grains flourish best between the altitude of 6000 and 9000 feet. Wheat under the equator will seldom spring up below the elevation of 4500 feet, or ripen above that of 10,800. Humboldt says there are very fine harvests of wheat near Victoria, in the Caraccas province, at 1640 and 1900 feet above the level of the sea. In Cuba, wheat crops will flourish and ripen at a small elevation. Rye and barley, from their constitution, are capable of resisting cold better than wheat, and, consequently, of ripening in a superior altitude. Maize is cultivated in the same climate as the banana, but will flourish 9000 feet high. Oranges, pine-apples, and every variety of delicious fruits and vegetables, are found on the lower grounds of the Andes, within the tropics. Cassava, maize, cacao, coffee, sugar, cotton and indigo are cultivated with success. Indigo and cacao, however, require great heat to ripen them. Cotton and coffee require a more temperate climate. Sugar arrives at a superior degree of perfection in the more temperate regions of the province of Quito.—For further information, see Humboldt, and the *Journal de Physique*, vol. liii. for 1801. For the different mountains of the Andes, see their respective articles. See, also, *America*.

ANDOVER; a borough in Hampshire, England, situated on the small rivulet Ande. It is a great thoroughfare between London and Salisbury, and sends two members to parliament. It lies 65 miles W. by S. of London.

ANDOVER; a post-township of Massachusetts, in the county of Essex, 20 miles N. of Boston; pop. in 1820, 3689. It is situated on the S. E. side of the Merrimack, and is also watered by the Shawshen; is pleasant and flourishing, and contains three parishes, in each of which there is a Congregational meeting-house. A. has some manufactures, but it is chiefly celebrated for its literary institutions, particularly its theological seminary. In

the north parish is an academy styled *Franklin academy*. The south parish contains the theological seminary, and an academy styled *Phillips academy*, which was founded in 1778. The theological seminary was founded in 1807, and is very liberally endowed. It has a pleasant, healthy and elevated situation, which commands a beautiful and extensive prospect. The buildings consist of dwelling-houses for the professors; a steward's house, containing a dining-hall; and 3 public edifices of brick. The library contains upwards of 5000 volumes. There are 4 professors. The number of students is now about 120.—The course of education is completed in 3 years. As qualifications for admission, the constitution requires a liberal education, and testimonials of good character and talents. Tuition and room-rent are afforded free of expense to all, and the charity funds give support to such as are indigent. A public examination is held on the 4th Wednesday of September. There are 2 vacations, of 5 weeks each.

ANDRE, major J.; an adjutant-general in the British army in N. America during the revolutionary war. He was originally a merchant's clerk. Employed to negotiate the defection of the American general Arnold, and the delivery of the works at West Point, he was apprehended in disguise, Sept. 23, 1780, within the American lines, and sent prisoner to general Washington, who submitted his case to the examination and decision of a board of general officers, consisting of major-general Greene, William Alexander (lord Stirling), the marquis de la Fayette, &c. The board declared him a spy from the enemy, and, agreeably to the law and usage of nations, he was hanged at Tappan, in New York, Oct. 2, 1780. A monument is erected to his memory in Westminster abbey. He is the author of a poem entitled *The Cow Chase*. (See *Arnold*.)

ANDREA DEL SARTO. (See *Sarto*.)

ANDREOSSY, Antoine François, count; a French general, great-grandson of the renowned François Andreossy, who died in 1828. He was the engineer who finished the canal of Languedoc, from the Atlantic to the Mediterranean, was born at Castel-Naudary, in 1761, and, in 1781, was lieutenant in the French artillery. In 1797, he distinguished himself, as commander of the gun-boats, upon the lake of Mantua, at the siege of this fortress. In later times, he made himself conspicuous, in the French expedition to Egypt,

by his learned writings, as a member of the national institute at Cairo, particularly on mathematics. He was sent as French ambassador to London, after the peace of Amiens; afterwards, to Vienna, and at last to Constantinople. In 1814, the king recalled him from this post. In 1815, he was again employed by Napoleon, during the "hundred days." Besides his *Mémoire sur l'irruption du Pont Euxin dans la Méditerranée*, and his *Mémoire sur le Système des eaux qui abreuvent Constantinople*, his work on the Bosphorus and the Turkish empire is esteemed good.

ANDREW, St.; brother of St. Peter, and the first disciple whom Christ chose. Both brothers were fishermen, but left their business, and followed the Redeemer. The fate of A., after Christ's death, is uncertain; the common opinion is, that he was crucified. The Russians revere him as the apostle who brought the gospel to them; the Scots, as the patron saint of their country. In the early ages of the church, a pretended Gospel of his was in circulation. The *Acta*, also, which bear his name, are not genuine. The order of St. A. is one of the highest orders of the empire of Russia, instituted by Peter the Great, in 1697.—For the Scottish knights of St. A., see *Thistle*.

ANDREW'S, St.; an important city of Scotland, on the Firth of Tay, 39 miles from Edinburgh; W. lon. 2° 50'; N. lat. 56° 19'. It is about a mile and a half in circuit, consisting of 3 principal streets; 2 churches of the kirk of Scotland, one Episcopalian, two Dissenting meeting-houses, and a university, having two colleges—St. Salvador's and St. Mary's. Pop. 3300. It is a royal burgh, and returns, in union with 4 other places, one member to parliament. St. A. was formerly a place of considerably greater extent than at present. The iconoclastic zeal of the reformers, in the year 1559, levelled with the ground its noble cathedral. Ruins of several ancient buildings are still to be seen. The university was founded in 1412. The number of students, at both colleges, has never been known to exceed 300, and they do not, at this time, amount to 200.

ANDREW, St., cross of; a cross of the form X, because, according to tradition. St. A. was executed on a cross which had this shape, Nov. 30, A. D. 83, at Patras, in Achaia.

ANDREWS, Lancelot, bishop of Winchester, in the reigns of James I and Charles I, was born in London, 1565.

He is particularly known by one of his works, *Tortura Torti* (1609), which he wrote against a publication of cardinal Bellarmine, under the fictitious name of *Matthew Tortus*, in which the cardinal had attacked James' Defence of the Rights of Kings. His works best known at present are, a volume of Sermons, 1628—31, fol. 1642; the Moral Law expounded, or Lectures on the Ten Commandments, 1642, fol.; Collection of Posthumous and Orphan Lectures, delivered at St. Paul's and St. Giles', London, 1657, fol.

ANDRIEUX, François Guillaume Jean Stanislas, one of the most distinguished modern French dramatic poets, born at Strasburg, May 6, 1759, was, before the revolution, secretary of the duke of Uzès. By his zeal for true liberty during the revolution, by his firm adherence to the constitution, and by his constant support of the rules of natural right, he was not less distinguished, than by his easy wit, and the striking characters and fine poetry contained in his numerous literary works. His writings sometimes want finish, particularly in respect to the language. In 1798, he entered the legislative body, as deputy of the department of the Seine, where he made a conspicuous figure by his speeches, and motions respecting the establishment of primary schools, the liberty of the press, and the murder of the ambassadors at Rastadt. After the 18th Brumaire, he became tribune; July 21, 1800, secretary; and, in September, president of the tribunate. He declared himself with zeal and firmness against the anti-constitutional measures of the first consul and of the senate, until 1802, when he was obliged to resign. Nevertheless, the emperor afterwards made him knight of the legion of honor, and professor of literature at the *Collège de France*, and of belles-lettres at the polytechnic school. In 1816, the king admitted him a member of the French academy. His principal work of classical reputation, is *Anaximander*, a play in one act. His *Les Etourdis* is also very popular. He is likewise the author of *Molière avec ses Amis*. His *Examen Critique du Théâtre des Grecs* is highly valued.

ANDROCLUS, or ANDRODUS; a Dacian slave, who being exposed to a lion in the circus, the animal forbore to hurt him, because he had formerly taken a thorn out of his foot. He was, in consequence, liberated, and led the lion about the streets of Rome.—*Aul. Gel.* l. v. c. 14. *Jel. Hist. An.* l. vii. c. 48.

ANDROIDES (from *άνθρωπος*, a man, and *ειδος*, form); a figure of human shape, which, by certain machinery, is made to perform some of the natural motions of a living man.

ANDROMACHE; daughter of Etion, king of Thebes in Cilicia, and wife of Hector. (q. v.) After the conquest of Troy, she became the prize of Pyrrhus, son of Achilles, who carried her to Epirus, and had 3 sons by her, but afterwards left her to Helenus, brother of Hector, to whom she bore a son. Euripides has made her the chief character of a tragedy.

ANDROMEDA; daughter of the Ethiopian king Cepheus, and of Cassiopeia. The mother and daughter were very beautiful. The former having boasted that her daughter surpassed the Nereides (if not Juno herself) in beauty, the offended goddesses called on their father to revenge the insult. He not only inundated the territory of Cepheus, but also sent a horrid sea-monster, which threatened universal destruction. The oracle declared that the wrath of Neptune could not be appeased, unless Cepheus delivered his daughter to the monster. In this extremity, Perseus beheld her, when, with the head of the Gorgon in his hand, and mounted on Pegasus, he was returning from his victory over Medusa. Touched by compassion and love, the hero promised to kill the monster on condition that the virgin should be given him in marriage. The father promised it, and kept his word. In memory of the exploits of Perseus (q. v.), A., by the favor of Pallas, was placed among the stars.

ANDRONICUS of Cyresthes; a Greek architect, celebrated for having constructed, at Athens, the tower of the winds, an octagonal building, on each side of which was a figure representing one of the winds. On the top of the tower was a small pyramid of marble supporting a brazen Triton, which turned on a pivot, and pointed with its rod to the side of the tower on which was represented the wind that was then blowing. As each of the sides had a sort of dial, it is conjectured that it formerly contained a clepsydra or water-clock.

ANDRONICUS of Rhodes; a follower of Aristotle, who lived B. C. 63, and wrote commentaries on that author. He also restored and published the works of that philosopher, which Sylla had brought from Greece.

ANDROS; islands of the Holy Ghost (*isles del Espíritu Santo*); a group of isles

extending in the form of a crescent, for upwards of 50 leagues in the neighborhood of the Great Bahama bank, and amongst the Bahamas; in N. lat. 24° to $25^{\circ} 30'$, and W. lon. 77° to $78^{\circ} 20'$. The passages through them are dangerous. Attempts have been made to colonize the principal Andros island. In 1788, 200 inhabitants, including slaves, were settled there. It has the privilege of sending one member to the house of assembly of the Bahamas. The approach to it is very difficult, for various reasons.

ANDROSCOGGIN, or AMERISCOGGIN; a river which forms the outlet of Umbagog lake, and has the first part of its course in the eastern part of New Hampshire. After entering the state of Maine, it flows first in an easterly, and afterwards in a southerly direction, and joins the Kennebec at Merry-meeting bay, 6 miles above Bath, and 18 miles above the entrance of the river into the ocean. Its whole course is about 150 miles in length.

ANELLO, Thomas. (See *Masaniello*.)

ANEMOMETER; an instrument contrived to measure the strength and velocity of the wind.

ANEMONE, wind-flower, in botany; a genus of the *polygamia* order, and *polyandria* class, ranking, in the natural method, under the 26th order, *multisiliquæ*. It has its name from the Greek *ἄνεμος*, (the wind), because it is supposed not to open unless the wind blows. Linnaeus enumerates 21 species: those valuable on account of their beauty are the following: 1, *anemone apennina*, a native of Britain, growing in the woods; 2, *anemone coronaria*; 3, *anemone hortensis*; both natives of the Levant, particularly of the Archipelago islands, where the borders of the fields are covered with them; 4, *anemone nemorosa*, growing wild in the woods, in many parts of Britain, where it flowers in April and May. Prof. Candole (*De Cand. Syst.* vol. i. 188) enumerates 45 species of anemone.

ANEMOSCOPE; every contrivance which indicates the direction of the wind. The vane upon towers and roofs is the simplest of all anemoscopes. There are also some, where the vane turns a moveable spindle, which descends through the roof to the chamber where the observation is to be made. On the ceiling of this apartment a compass-card is fixed, and, whilst the wind turns the vane together with the spindle, an index, fixed below, points out the direction of the wind on the card. Some are so made as, even in the absence of the observer, to note down

the changes of the wind. Among the most perfect of this kind, is that of prof. Moscati, and of the cav. Marsilio Landriani.

ANEURISM; the swelling of an artery, or the dilatation and expansion of some part of an artery. This is the true aneurism. There is also a spurious kind of aneurism, when the rupture or puncture of an artery is followed by an extravasation of blood in the cellular membrane. If the external membrane of the artery is injured, and the internal membrane protrudes through, and forms a sac, it is called *mixed aneurism*. Lastly, there is the varicose aneurism, the tumor of the artery, when, in bleeding, the vein has been entirely cut through, and at the same time the upper side of an artery beneath has been perforated, so that its blood is pressed into the vein. The genuine aneurisms arise partly from the too violent motion of the blood, partly from a preternatural debility of the membranes of the artery, which is sometimes constitutional. They are, therefore, more frequent in the great branches of the arteries; in particular, in the vicinity of the heart, in the arch of the aorta, and in the extremities, for instance, in the ham and at the ribs, where the arteries are exposed to frequent injuries by stretching, violent bodily exertions, thrusts, falls and contusions. They may, however, be occasioned also, especially the internal ones, by diseases, violent ebullitions of the blood, by the use of ardent spirits, by vehement passions and emotions, particularly by anger: in such cases, the arteries may be ruptured, and sudden death produced. The external aneurisms are either healed by continued pressure on the swelling, or by an operation, in which the artery is laid bare, and tied above the swelling, so as to prevent the flow of the blood into the sac of the aneurism, which contracts by degrees. Sometimes the ligature is applied both above and below the aneurism.

ANFOSSI, Pasquale, was born at Naples, in 1729, played on the violin in the music schools of Naples, and studied composition under Sacchini and Piccini. The latter had a great friendship for him, and procured him, in 1771, his first employment, in the theatre *delle dame* at Rome. Though he met with no success, Piccini procured him, in the following year, a second engagement, in which he was also unsuccessful. In a third engagement, the year afterwards, A. was more fortunate. The Persecuted Unknown was performed, in

1773, with great applause, as were also *La Finta Giardiniera* and *Il Geloso di Cimento* some time afterwards. On the other hand, the *Olimpiade*, in 1776, entirely failed, and the mortification of the author, on this occasion, induced him to leave Rome. He travelled through Italy, and, about 1780, went to France. He performed in the royal academy the Persecuted Unknown; but this lovely and delicate music did not meet with the reception which it deserved. From France A. went to London, where, in 1783, he was director of music at the Italian theatre. In 1787, he returned to Rome, where he brought out several pieces, the success of which made him forget his disappointments, and gained him a reputation which he enjoyed until his death, in 1795. A. frequently reminds us of Sacchini and Piccini, after whom he formed his style; but his taste, expression and style of progression and resolution are extraordinary. Several of his *finales* are models in their kind. His fertility proves that he composed with ease. Of his works, we may also mention the *Avaro*, *Il Curioso Indiscreto* and *I Viaggiatori Felici*, which rank among the best comic operas. He has also composed several oratorios and psalms, written mostly by Metastasio.

ANGEL (from the Greek *ἄγγελος*, a messenger). Under the articles *Demon* and *Demonology* is shown in what way the idea of angels was introduced into Christianity; here we shall only explain how this idea was further developed. Under the name of *angels* is understood a kind of good spirits, having a near connexion and communication with men. In the Jewish theology, they were divided into different classes and ranks. These have been most accurately described by the author of the Heavenly Hierarchy, ascribed to Dionysius the Areopagite. He forms them into three classes, each containing as many subdivisions. According to the majority of writers, they were created long before the visible world; according to others, at the same time as the heaven and earth, when God commanded the light to be, and his spirit moved over the waters. Their office is to serve the Deity, whose agents they are in effecting his good purposes, as the tutelary spirits of whole nations and kingdoms, as the heralds of his commands, as the guardians of particular individuals, and the directors of particular events. They were supposed to be spirits with ethereal bodies. This conception of them was established

as a doctrine of the church by the council of Nice (in 787), but is at variance with the decision of the Lateran council of 1215, which makes them immaterial beings. Those who regard the body merely as an incumbrance, or prison of the soul, and conceive a very exalted idea of pure spirits, hold angels to be such spirits, and explain their visible appearance by supposing that they have the power of assuming at will bodily forms and a human shape. Those who consider it no imperfection for a spirit to exist in a body, maintain that angels have bodies. As finite beings, they must have some place where they reside. The ancients easily found a habitation for them in their heaven, which was conceived to be a vast azure hall, where God dwelt with his angels; but we, who have very different ideas of heaven and the universe, can only suppose that, if they still operate on human things, they dwell invisibly with and about us. As to their names, the Catholic church receives only three as sanctioned by the Scriptures,—Michael, Gabriel and Raphael. Among the heresies of Aldebert, condemned by a Catholic council, at Rome, under pope Zachary, 704, he was accused of invoking angels by unknown names, such as Uriel, Raguel, Simiel, &c. It was expressly declared that these were not names of angels, but of evil spirits. The later Catholics, however, have not changed their views in this respect, and the Catholic Sonnenberg has, after the example of Milton and Klopstock, not only mentioned other angels, but invented names for them. Swedenborg gives in his works a classification and detailed description of the angels. It is known that his followers believe in the constant influence of angels and the spirits of the deceased.

ANGEL; a gold coin formerly current in England, so named from having the representation of an angel upon it. It weighed four pennyweights, and was twenty-three carats and a half fine. It had different values in different reigns; but is now only an imaginary sum, or money of account, implying 10 shillings.

ANGELO BUONAROTTI, Michael; of the ancient family of the counts of Canosa; born, 1474, at Caprese or Chiusi; one of the most distinguished names in the history of modern art, eminent alike in painting, sculpture and architecture, and, withal, no mean poet. He was also an expert fencer. A. was one of those favorites of nature, who combine in their single persons the excellences of many

highly-gifted men. Domenico Ghirlandajo was his first master in the art of drawing. Before he had been with him two years, in the academy of arts established by Lorenzo de' Medici, he studied statuary under Bertoldo, and, in his 16th year, copied the head of a satyr in marble, to the admiration of all connoisseurs. He attracted no less attention as a painter, and received the honorable commission (together with the great Leonardo da Vinci) of decorating the senate-hall at Florence with historical designs. For this purpose, he sketched that renowned, though not completely preserved cartoon, which represents a scene from the Pisan war, and is praised by critics as one of his most perfect creations. Meanwhile, pope Julius II had invited him to Rome, and intrusted him with the charge of erecting his sepulchral monument. Twice this labor was interrupted—once by the offended pride of A., and then by the envy of contemporary artists. Bramante and Giuliano da San Gallo, in particular, persuaded the pope to have the dome of the Sistine chapel painted by Michael A. Knowing that he had not yet attempted any thing in fresco, they hoped that the imperfect execution of this task would alienate the favor of the pope from him. A. declined the commission, but the pope would not be refused, and, in the short space of 20 months, the artist finished the work, which was admired by all connoisseurs, and of which Fernow says rightly, that it displays, perhaps, more than any other of his productions, all the sublimity of his original genius. The *cappella Sistina* is certainly the grandest ensemble of art. Its perfection is owing chiefly to Michael Angelo's divine paintings. (See *Sistine Chapel*.) A. was about to proceed with the monument of Julius, when this pope died. His successor, Leo, sent A. to Florence to erect the front of the Laurentian library. Leo, however, shortly after died, and his successor, Adrian VI, employed A. to make the statues for the monument of Julius; particularly the renowned statue of Moses, and the Christ, which was afterwards placed at Rome, in the church della Minerva. Clement VII, who next ascended the pontifical chair, recalled A. to Rome, and charged him with the finishing of the new sacristy and the Laurentian library at Florence. In the first, the monuments of the Medici are by him; e. g., the figures of Day and Night. Tumultuous times followed, after the lapse of which, he was employed to paint the *Last Judgment* in the Sistine chapel.

The artist, now 60 years old, unwillingly commenced a work which might endanger his fame. Naturally inclined to deep and earnest thought; preferring the sublime conceptions of Dante to all other poetry; having, by a constant study of anatomy, investigated the most secret mechanism of the muscles, and conscious of his own power,—he endeavored, in this work, to strike out a new path, and to surpass his predecessors, particularly Luca Signoretti, by a display of terrible power. The picture is grand, nay, gigantic, like the mind which created it. It represents Christ in the act of judging, or, rather, at the moment of condemning. Martyrs are seen, who show to the Judge of the living and dead the instruments of their torture; souls ascend to the choirs of angels hovering above; the condemned strive to break loose from the grasp of the devils; there the evil spirits burst into shouts of triumph at the sight of their prey; the lost, who are dragged down, endeavor to cling to the good, who remain in Christ's kingdom; the gulf of eternal damnation is seen opening; Jesus Christ and his mother are seen surrounded by the apostles, who place a crown on his head, and by a multitude of saints, while angels above carry in triumph the symbols of his passion; and, lower down, another company of angels sound the trumpets intended to awaken the dead from their tombs, and call them to judgment. All this, and a vast deal more, is executed in the awful style of Dante. With these scenes of fear and despair, of judgment and of heavenly beatitude, a wall of great height and breadth is filled, and every where is displayed the most profound study, the richest experience, and the lofty spirit of a master. The effect of this picture resembles that of the sublimest passages of Dante, particularly in connexion with the large images of the prophets, who, like warning and stern heralds of the last judgment, look down from the ceiling upon the spectator, resembling beings of another world, rather than images made by the hand of man. Whilst this picture of the *Last Judgment* shows the human figure in all its attitudes and foreshortenings, and gives us the expression of astonishment, of pain, of despair, through all their degrees, it may be considered as an inexhaustible treasure for the study of the arts. A.'s last considerable works in painting were two large pictures—the *Conversion of St. Paul*, and the *Crucifixion of St. Peter*, in the Pauline chapel. In sculpture, he

executed the *Descent of Christ from the Cross*, four figures of one piece of marble. It is reported of his Cupid in marble, that it was a more perfect copy of another Cupid, which he had buried in the ground, after having broken off one of its arms, in order that it might pass for an antique. This perfect Cupid is as large as life. A's statue of Bacchus was thought, by Raphael, to possess equal perfection with the masterpieces of Phidias and Praxiteles. As late as 1546, A. was obliged to undertake the continuation of the building of St. Peter's. He corrected its plan, for which he chose the form of the Grecian cross, and reduced to order the confusion occasioned by the various plans which had been successively pursued in the course of its construction. But he did not live long enough to see his plan executed, in which many alterations were made after his death. Besides this, he undertook the building of the Campidoglio (Capitol) of the Farnese palace, and of many other edifices. His style in architecture is distinguished by grandeur and boldness, and, in his ornaments, the untamed character of his imagination frequently appears, preferring the uncommon to the simple and elegant.—His poems, which he considered merely as pastimes, contain, likewise, convincing proofs of his great genius. They are published in several collections, but have also appeared singly.—One of the greatest historians of our time has suggested, that a king of Italy, such as Machiavelli wished him, and every reflecting Italian must wish him, in order to unite that unhappy country, ought to be a man like Michael Angelo—ardent, severe, firm and bold. Michael A., though of a lofty spirit, was not haughty; he is said to have been in the habit of giving models for the images of saints to the engravers in wood, and the dealers in pictures and casts. His prose works, consisting of lectures, speeches, *ciccolate*, that is, humorous academical discourses, are to be found in the collection of the *Prose fiorentine*, and his letters in Bottari's *Lettere pittoriche*. (See the *Vita di Michelangelo B., scritta da Ascanio Condivi, suo Discepolo*; Rome, 1553, 4; Florence, 1746, fol., with addit.; the last edition, Pisa, 1823, with comments by the cav. de Rossi.)

ANGELONI, Luigi, count, from Frosinone, lived at Paris respected as a scholar, where he published, in 1818, in 2 vols., *Dell' Italia, uscente del Settembre del 1818. Ragionamenti IV, dedicati alla Italica Nazione*. His pamphlet, published in May,

1814, in favor of the union of Italy, was favorably received by the king of Prussia, whilst, in Milan, the bookseller Stella was arrested for selling it. He displays a dislike, not only towards Austria, but towards every foreign government of his native country. This representation of its former and present civil, social and intellectual condition is very interesting. The account of the disappointment of the Lombard embassy, sent to the allied sovereigns, at Paris, 1814, to obtain the promised independence, is entirely new. Lord Castlereagh called the promises, which had been made to the Italians in the earlier manifestos, *opere d' imbecillità*.

ANGERSTEIN, John Julius, was born at St. Petersburg in 1735, and went to England under the patronage of the late Andrew Thompson, with whom he continued in partnership upwards of 50 years. A. first proposed a reward of 2000*l.* from the fund at Lloyd's to the inventor of the life-boats. His celebrated collection of paintings has been purchased since his death by the English government, at the expense of 60,000*l.*, as the nucleus of a national gallery. Mr. A. died at Woodlands, Blackheath, January 22, 1822, aged 91.

ANGERSTEIN GALLERY. (See *National Gallery*.)

ANGLE; the inclination of two lines: 1, of two straight lines. Angles are measured by arcs of a circle, the centre of which is the point where both the sides of the angle meet, the *vertex*, as it is called in geometry. Every circle, large or small, is divided into 360 degrees, each degree into 60 minutes, each minute into 60 seconds. It is, therefore, clear, that the size of the angle has nothing to do with the length of the lines, because only their inclination is measured. An angle of 6 degrees, 2 minutes and 3 seconds is written thus: $6^{\circ} 2' 3''$. Angles are divided into right angles, equal to 90° , four of which are equal to the whole circle; obtuse angles, those greater than 90° ; and acute angles, those which are less. 2. There are, also, spherical angles and solid angles; the former formed by arcs, the latter by planes.—Whole sciences are based on the theory of angles, e. g., trigonometry. The calculations of the astronomer, and the measuring of distant objects, depend on the science of triangles, which, in fact, is nothing else but the science of angles. The ancients were acquainted with the theory of angles. In fact, geometry, and, one might almost say, mathematics began with the science of angles.

ANGLES; a German nation, which resided in what is now the dukedom of Magdeburg, in Prussia, near the Elbe, and, probably, succeeded to the former seat of the Lombards, when these latter had driven the Cherusci from the northern half of their country. As they never approached the Rhine and the Roman frontiers, we do not find their name mentioned by the Roman authors, who comprehended them, with many others, under the general name of *Chauci* and *Saxons*, until the conquest of Britain made them better known as a separate nation. In the 5th century, they joined their powerful northern neighbors, the Saxons, and, under the name of *Anglo-Saxons*, conquered the country now called *England*. (See *Great Britain*.) A part of them remained near the Danish peninsula, where, to the present day, a small tract of land, on the eastern coast of the duchy of Schleswig, bears the name *Angeln*.

ANGLESEA, or **ANGLESEY** (ancient *Mona*); an island and county of North Wales, in the Irish sea, separated from the main land of Britain by a narrow strait called *Menai*, over which there has been lately erected a magnificent suspension bridge. (See *Menai*.) The island is 24 miles long and 17 broad, containing 4 market-towns and 74 parishes. Sq. miles, 402; population, 37,045. The soil is fertile; the chief products are grain and cattle. Of the former, about 100,000 bushels are exported in favorable seasons. It returns 2 members to parliament.

ANGLESEA (Henry William Paget, earl of Uxbridge), marquis of; British general of cavalry, who, after the battle of Waterloo, June 18, 1815, where he lost a leg, was created marquis of Anglesea, on account of the valor he displayed there. He served as a lieutenant-general under Wellington, in Portugal and Spain, where, under the name of *Paget*, he distinguished himself on several occasions by his skill and courage, and was wounded several times. On his return to England, in August, 1815, the citizens of Litchfield carried him, in triumph, to the town-hall, and presented him with a sword. The marquis has a seat in the British house of lords, and voted, in the trial of the queen, for the bill of condemnation. His unfortunate union with lady Charlotte Wellesley, sister-in-law of Wellington, whom he married after her separation from her husband, is known. He was made lord lieutenant of Ireland, Feb. 1828, and recalled in Jan. 1829. Great honors were paid him by the people of

Ireland on his departure. His successor is the duke of Northumberland.

ANGLING; the art of ensnaring fish with a hook, which has been previously baited with small fish, worms, flies, &c. Among no people has this art attracted so much attention, and nowhere have so many persons of all classes, both clerical and secular, resorted to angling as an amusement, as in England, whose literature is richer than that of any other country in works relating to this sport, both in prose and verse. A similar fondness for angling exists in the U. States. In both countries, in England and North America, angling is followed by many sportsmen with a kind of passion. In England, it has been thought of sufficient importance to be protected by statute; and a series of acts, from the reign of Edward I to George III, exists, relating to angling and fishing. In the U. States of America, angling, like all other kinds of sport, is free to any body. Several English sportsmen, who have resided for a long period in the U. States, have assured us, that angling affords much better sport in the latter country, on account of its great number of rivers rich in fish, the perfect liberty with which the angler can prosecute his pleasure, and the small number of gentlemen who are at leisure to give their time to it. In this country, ladies do not partake so often in this amusement, as in England. It is said that angling came into repute in the latter country about the period of the reformation, when both the secular and regular clergy, being prohibited by the common law from the amusements of hunting, hawking and fowling, directed their attention to this recreation. The invention of printing aided in drawing attention to this subject, and made known its importance "to cause the helthe of your body, and specyally of your soul," as the first treatise concludes. Wynkinde Worde gave the world, in 1496, a small folio republication of the celebrated Book of St. Albans. It contained, for the first time, a curious tract, entitled the *Treatyse of Fyshinge wyth an Angle*, embellished with a wood-cut of the angler. This treatise is ascribed to dame Juliana Berners or Barnes, prioress of a nunnery near St. Alban's. "The angler," she observes, "atte the leest, hath his holsom walke and mery at his ease, a swete ayre of the swete sauoure of the meede floures that makyth him hungry; he hereth the melodyous armony of the fowlls, he seeth the yonge swannes, heerons, duckes, cotes

and many other fowles, with their brodes, whych me seemyth better than alle the noyse of houndys, the blastes of hornys, and the scrye of fowles, that hunters, fawkeners and foulers can make. And if angler take fysshe, surely thenne is there noo man merier than he is in his spyryte." Walton's inimitable discourse on angling was first printed in 1653, in an elegant duodecimo, with plates of the most considerable fish cut in steel. This edition and three subsequent ones consisted wholly of what is now called part the *first* of the *Complete Angler*, being Walton's individual portion of the work. In a rude state of society, angling was resorted to from necessity. This occupation soon became an amusement for those who had leisure enough to spend time in it, as it affords to most people much pleasure. We find occasional allusions to this pursuit among the Greek writers, and throughout the most ancient books of the Bible. Plutarch mentions an amusing anecdote of Antony's unsuccessful angling in the presence of Cleopatra, and a fine trick which she played him.

ANGLO-SAXON History. (See the article *England*, and, for further information, Turner's *History of the Anglo-Saxons*, London, 1807; also the article *Anglo-Saxon* in the American edition of the New Edinburgh Encyclopædia.)—*Anglo-Saxon Language*; that language which, in the middle of the 5th century, was transplanted by the Angles, Saxons and some other German tribes, into England, and continues, though much altered, to form the basis of the modern English dialect. The German language was early divided into two principal dialects, the Upper and Lower German, both derived from the Gothic, as we find it in Ulphilas' translation of the Gospels. To the Lower German belonged the idiom which was spoken by the Saxons, a numerous and valiant German tribe, who inhabited almost all the north of Germany, where this idiom prevailed, and branched out, at a later period than the migration of the Anglo-Saxons and Goths, or Jutes, into various dialects, of which the Frisian was the earlier, the Dutch the more recent, formation. It remained the prevailing language, even after the subjugation of the Saxons in Germany by Charlemagne, and continued, down to the period of the reformation, not only the dialect of conversation, but also of several valuable literary works, in prose and verse, many of which, from the period of the middle ages, are still preserved. At the reforma-

tion, it gave way to the High German, for the purposes of literary composition and the conversation of the higher classes; though, to this day, it continues to be the dialect of the people, and is known by the name of the *Low German*. There is no doubt that any one, who intends to investigate the English language scientifically and thoroughly, tracing the words, as well as the structure of the language, as far towards their origin as possible, cannot dispense with studying Low German, which has been too much neglected even by those eminent scholars whose investigations have done so much service to the English language. Few readers, probably, are aware of the striking resemblance between Low German and English, even as it is now spoken, and we feel induced to quote some lines of the famous poem *Reynard the Fox* (q. v.), in Low German, first published in 1498, with a literal interlineary translation into English. The poem begins thus:

*It shag up enen Pinkste-dag,
It chanced upon a Pentecost-day,
Dat man de wöilde un felde sag
That men the woods and fields saw
Grone stân mid lœv un grass, &c.
Green stand with leaf and grass, &c.*

The difference between the Low and the High German is, in many respects, striking. It is found in the words, the grammar, the pronunciation, and in the whole style of expression; and it is very interesting to see how many of these deviations from the High German are common to the Low German with the English: for instance, it has not the augment *ge* of the participle; it often cuts off the ends of words which do not belong to the radix; and has many more monosyllables than the High German; it makes no distinction between the accusative and dative; the masculine, feminine and neuter articles are the same; the pronunciation of *a* is, in many cases, mixed with the sound of *o*, as in the English *all*, and often inclines strongly to the English sound *a* in *case*; it has often an *s*, where the High German has *sch* (pronounced *sh*), preceding a consonant; in some parts of Low Germany, *sch* (pronounced, generally, *sh*), before a vowel, takes the sound of the English *sk*; instead of *ch* at the end of words, it takes a *k* or *c*; in all which particulars it is nearer to the English than to the High German. A deeper investigation would show the close connexion even of the Saxon, as it now forms a part of English, with the Low German; to

say nothing of the innumerable words which are almost the same in both languages. (Among other works on this subject, see *A Letter from Germany to the Princess royal of England on the English and German Languages*; by Herbert Croft; London and Leipsic, 1797.) The remarkable English pronunciation of the *i* is less common in the dialects we have just spoken of, than in the German dialect spoken in Dantzic and Prussia Proper. In this dialect, the German *ei* (pronounced *i*) and the German *i* (pronounced *ee*) are uttered more in the English way than in the other German dialects. Probably this pronunciation, when the Saxon conquerors left Germany, was common to all the dialects of the north of Germany.—After the conquest of England by the Angles and Saxons, the Saxon became the prevalent tongue of that country, borrowing words, indeed, from the aborigines, and from the Roman conquerors, but these were only single and detached parts, and did not constitute an integral portion of the language. From this time to the conquest of the Normans, the Saxon idiom made very considerable advances, as appears from the relics of the Saxon literature. The Saxon language of that time, moreover, seems to have been more sonorous and finer-sounding than its remains in the present English tongue, in the same manner as the modern German is of a less open sound, and is poorer in vowels, than the ancient was. Who does not think the words *noma*, *eorþa*, *urna*, *willā*, finer than their successors, *name*, *earth*, *our*, *will*? It is strange to see how both the German and English languages have lost many of their vowels and finer sounds, whilst, at the same time, the Italian language has always had a decided tendency to soften and euphonize all the materials left from the Latin. After the conquest by the Normans, the English language exhibits the peculiar case, where languages of two different stocks are blended into one idiom, which, by the cultivation of a free and active nation and highly-gifted minds, has grown to a powerful, organized whole. It cannot be doubted, on the one hand, that the English language has derived great advantages from the addition of the French stock, and the closer connexion with Latin, and all the languages of Latin origin, thus effected; but, on the other hand, this addition could not fail to prove injurious in some respects, of which we will here mention only two;—1, that the power of formation, of composi-

tion and decomposition, in which all the German idioms nearly resemble the Greek, has been, in a considerable degree, lost, so that we now very often find a word common to both languages, German and English, but in the former putting forth many branches, and giving birth to a whole family of words for the different shades of one idea or many connected ideas, whilst in the latter it has remained like a stump with no foliage; and, 2, that the English language has acquired too great a readiness to receive foreign words, without seeking, in its own store, the means of supplying the new want. In no period, perhaps, has this disadvantage appeared more strikingly than at the present, when a greater intercourse between England and France exists than ever, and fashionable works appear full of French intruders. If we consider the Saxon stock in the present English idiom, the following circumstances appear the most striking:—1. By far the greater part of the language is of Saxon or (to include the Danish) of Teutonic origin; almost all the verbs, particles and other words, which form the frame of our speech, being of Teutonic descent. Mr. Turner has shown this very strikingly at the end of his *History of the Anglo-Saxons*, where he gives many passages of the most eminent writers, both in poetry and prose, of different ages, with the words of Saxon origin printed in italics. Mr. Duponceau, in the article *Anglo-Saxon*, in the American edition of the *Edinburgh Encyclopædia*, says, “So far as we are able to judge from a superficial investigation of the subject, we are apt to believe that the English words of northern derivation are to those derived from the ancient, as well as the modern languages of southern Europe, in the proportion of something more than three, but not quite as much as four, to one.” 2. The structure of the verb and the greater part of the grammar is, fundamentally, Saxon. 3. A large quantity of Saxon words have disappeared, which were used before the Norman conquest. Mr. Turner, in the work already mentioned, says,—“I found, in three pages of Alfred’s *Orosius*, 78 words which have become obsolete, out of 548, or about one seventh. In three pages of his *Bede*, I found 230 obsolete, out of 969, or about one fifth.” 4. In many cases, the Saxon word denotes the raw material, or the thing before it is changed by human art; e. g., *ox*, *swine*, *sheep*: the English word of Latin or French origin signifies the same thing after changes have been

made in it by human labor; e. g., *beef*, *pork*, *mutton*. 5. If there exist two synonymous words, one of Saxon, the other of Latin origin, the former, on account of its greater antiquity (as far as regards the English language), is, generally, more expressive and poetical, though the latter is frequently considered more elegant; e. g., *fatherly* and *paternal*, *motherly* and *maternal*, *happiness* and *felicity*, *faithfulness* and *fidelity*, *kindred* and *relations*, *bereave* and *deprive*, *to dwell* and *to lodge*, &c. If the reader will take any fine passage of Shakspeare or the Bible, and change all the Saxon words for which he finds synonymes of French origin, the thoughts will appear deprived of their proper dress. This is also the reason why passages of German writers on common subjects often sound to Englishmen, who begin the study of this kindred language, as if poetically expressed, because the German words correspond to the Saxon and more poetical words of their own language. 6. In the English Bible, the Saxon stock prevails more than in any other English work, not only in respect to the words (many a long passage being wholly composed of Saxon words), but also in respect to the construction.—We may be allowed to close this article with the remarks of Mr. Duponceau in the *Encyclopædia* above mentioned. "The peculiar structure of the English language," he says, "is far from having been investigated as yet with that degree of attention and accuracy that it deserves. Among other things, we do not find that any grammarian has been at the pains to take a full comparative view of its two great component parts; by which we mean, on the one hand, those words that are derived from the Saxon, Danish and other northern languages, and, on the other hand, those from the Greek, Latin, French, Spanish and other idioms of the south of Europe. These two sets of vocabularies are so dissimilar from each other, that they appear at first view incapable of being amalgamated together, so as to form a harmonious whole; yet who is there that can read, feel and understand, and does not admire the sublime harmony which Milton, Dryden, Pope, Shakspeare, Bolingbroke, and the other immortal poets and prose-writers of Great Britain, have produced out of those discordant elements? To analyze, therefore, those elements, from which have resulted such inconceivable effects, is well worth the trouble of the grammarian and philologist; and the interesting discoveries, to which

such an inquiry will lead, will amply repay their learned labors." We will only add, that not only would such an inquiry lead to interesting and beneficial results, but the trouble of the student would be well repaid, if he would investigate the tendency of the language at different periods, and observe how, in some, an inclination to the Saxon stock, in others, to the Latin and its derivative languages, is apparent. At present, the Saxon stock is undoubtedly most in favor, as may be seen by any one who will look into the writings of Byron, sir Walter Scott, and other eminent writers of our time, although a disposition to make free use of French and Italian words is very observable in the intercourse of society and among secondary writers in the departments of light literature. (See *Low German*.)

ANGOLA (formerly called *Abonda*, or *Dongo*); a country of Western Africa, S. of Congo. In mercantile language, it includes all the coast from cape Lopez Gonsalvo to St. Phelipe de Benguela, from about lat. 1° to 12° S. The principal object for which this coast is visited is the trade in slaves, of which the number annually obtained is estimated, at least, at 40,000. Loanda, or St. Paul de Loanda, is the principal Portuguese establishment for obtaining Negroes. The Portuguese settled there in the middle ages. A remarkable range of mountains commences at the southern limits of Angola, now cape Negro, and runs up the interior in a N. E. direction. Large herds of wild cattle and mules adorn the plains, whilst lions, tigers, elephants, &c., infest the surrounding country. Vegetation is extremely luxuriant in A.

ANGOSTURA (*S. Tomas de Angostura*); a town of South America, in the republic of Colombia, 700 miles E. of Santa Fe de Bogota, on the Orinoco river; known by the congress held here.—The second congress of Venezuela, commonly called the *congress of Angostura*, was installed in the city of S. Tomas de A., Feb. 15, 1819, and the 9th year of the independence of Venezuela. 26 deputies assembled at that time, being 4 short of the number of which it was intended to consist, but sufficient to constitute a quorum. There were 5 from the province of Caracas; 4 from the province of Varinas; 5 from the province of Barcelona; 4 from the province of Guiana; 4 from the province of Cumana; and 4 from the province of Margarita. The session of this congress was opened with an elaborate address from the supreme chief, Bol-

ivar; after which, the deputy Francisco Antonio Zea was elected president. This congress had the honor, eventually, of proposing and effecting the union of New Grenada and Venezuela into one government, under the name of *Colombia*, by the fundamental law of the republic, dated Dec. 17, 1819. Its sessions terminated Jan. 15, 1820, arrangements being previously made for assembling the first general congress of Colombia at Rosario de Cúcuta, on the 1st of Jan., 1821. (See *Colombia, Rosario de Cúcuta.*)

ANGOULÊME; a city of France, the capital of the department of Charente, 60 miles from Bordeaux. The inhabitants are about 14,000, and carry on a considerable trade in paper. Lon. 9° 14' E.; lat. 45° 39' N. Before the revolution, it was the capital of Angoumois. Balzac and Ravallac were born here.

ANGOULÊME, Louis Antoine de Bourbon, duke of; dauphin since 1824, nephew of Louis XVIII, and eldest son of the present king of France, and of Maria Theresa of Savoy; born at Versailles, Aug. 6, 1775. He emigrated, with his father, in 1789, and spent his time at his grandfather's, in Turin, with the duke de Berri, his brother, chiefly in the study of gunnery. In Aug., 1792, he placed himself at the head of a corps of emigrants in Germany. The bad success of the war induced him to settle with his father at Edinburgh. He went, however, some time afterwards, to Blankenburg, in the duchy of Brunswick, and finally to Mittau, in Russia. There he married the only daughter of Louis XVI. In 1801, he left Mittau, and went, with his wife and Louis XVIII, to Warsaw, under the protection of the king of Prussia. But the political system of the cabinet of Berlin obliged them, in 1805, to go a second time to Russia, where they met with the kindest reception from Alexander. Thence he went to England, where the count d'Artois and the whole Bourbon family resided together, at a retired country-seat, near London. When the allied armies invaded France, in 1814, the duke of A. Feb. 2, 1814, repaired to the head-quarters of the British army, at St. Jean de Luz, and immediately wrote that famous proclamation to the French army (*J'arrive, je suis en France, dans cette France qui m'est si chère.*) The inhabitants of Bordeaux had already declared themselves against Napoleon, and the most zealous royalists hastened daily to the frontiers to offer their services to the duke. At length, under the protection of the English army,

he made his entry into Bordeaux. The duke solemnly promised to the mayor, before the assembled citizens, oblivion of the past, and happiness for the future. Three days afterwards, he issued a proclamation, in which, in the name of the king, he promised the abolition of the conscription and of unpopular taxes, encouragement of commerce, and complete religious liberty; but, at the same time, demanded of the French quietness and order, without any party spirit. Indefatigable in his zeal for the king, he hastened from city to city, in order to gain the favor of the citizens and soldiers, and arrived in Paris in May, where he found the whole royal family united. He was made colonel-general of the cuirassiers and dragoons, and admiral of France. In Feb., 1815, he made a journey into the southern provinces, with the duchess. But in Bordeaux, March 9, he received from Paris the news of the landing of Napoleon, and, at the same time, his appointment as lieutenant-general of the kingdom, with unlimited authority. He left the city immediately, confiding the duchess to the fidelity of Bordeaux, and established a new government in Toulon, at the head of which he placed count Damas and the baron de Vitrolles. After this, he advanced, with some troops of the line and national guards, towards Montelimart, where he beat the Bonapartists, March 30. He then marched from Montelimart to Valence, in order to take possession of Lyons, and, near Lorient, upon the heights of Livron, and at the bridge over the Drome, defeated the enemy a second time, but was attacked, April 6, near St. Jacques, driven back to Valence, and deserted by his troops. Bordeaux and Toulouse fell off, and he himself was arrested near Port St. Esprit, and imprisoned. After 6 days, he was released, and, with his followers, put on board of the Swedish vessel *Scandinavia*, at Cette. He landed at Barcelona, and went to Madrid, to Ferdinand VII. Soon after, he returned to the French frontier, to organize a new opposition to Napoleon. In Puycerda, July 10th, he learned that Marseilles had revolted from Napoleon. He wrote immediately to the royal committee in this city, and made the lieutenant-general, marquis de Rivière, governor. He himself collected all the French who had fled to Spain, and was about to pass the frontiers, when the events in the Netherlands opened anew to Louis XVIII the gates of the capital. The duke immediately hastened from Bordeaux to

Toulouse, where he restored the royal government, and in a short time organized several battalions of royal volunteers, who enlisted for 4 years, and garrisoned the fortresses in the Pyrenees, in the Alps, and along the coasts. After his return to Paris, he was made president of the electoral college in the department of the Gironde, and set out with his wife, Aug. 15, for Bordeaux, where he opened the sittings of the electoral body with a speech, and had the pleasure of seeing the elections result according to his wish. Oct. 12, he was made president of the 5th bureau of the chamber of peers, but appeared there as seldom as the other princes of the blood. Political quarrels, and, still more, the violent religious disputes between Catholics and Protestants, soon obliged the king to send this prince into the southern provinces, where, after some ebullitions of party spirit, he succeeded in restoring tranquillity. In the campaign of 1823, in Spain, he was commander-in-chief, and is said to have carried on the war in a spirit of mildness.

ANGOULÊME, Maria Theresa Charlotte, duchess of, dauphiness, daughter of Louis XVI, born Dec. 19, 1778, at Versailles, displayed, in early youth, a penetrating understanding, an energetic character, and the tenderest feeling for the misfortunes of others. The grand-prince czar Paul, who travelled through France as comte du Nord, at his departure, took the little princess, then 4 years of age, in his arms, and kissed her; with the words, "Farewell; I shall never see you again." "Dear count," replied the child, "I shall come to you."—The revolution broke out, and, Aug. 10, 1792, the whole royal family was imprisoned in one of the towers of the temple. The princess, in Dec., 1795, was exchanged for the deputies whom Dumouriez had surrendered to the Austrians, and was carried to Vienna. Her income, at this time, consisted of the interest of a capital of 400,000 francs, which the archduchess Christina, of Austria, had bequeathed to her. During her residence at Vienna, Louis XVIII concluded to marry her to the duke of Angoulême; this was done, June 10, 1799, in Mittau. The emperor of Russia signed the contract. But the political situation of Russia obliged all the Bourbons, in the year 1801, to fly to Warsaw. Here they lived till 1805, when they returned, with the permission of the emperor Alexander, to Mittau. Towards the end of 1806, they were obliged, by the successes of Na-

poleon, to fly to England. The princess left her retired seat at Hartwell, for the first time, at the invitation of the prince regent, June 4, 1811, on the birth-day of George III. In April, 1814, she heard the news of the restoration of the Bourbons to the throne of France, and, May 4th, she made her entrance into Paris with the king. On the return of Napoleon to France, she was at Bordeaux with her husband. Her endeavors to preserve this city for the king being ineffectual, she embarked for England, went to Ghent, and returned thence to Paris, on the new change of things.

ANGORA, ANGYRA, or ANGOURA; a populous city of Natolia, 212 miles from Constantinople, and one of the neatest and most polished towns of Asia Minor. The inhabitants, the number of whom is not ascertained, are composed of Turks and Christians. It formerly was much more extensive, and its population, perhaps, double that of recent times, having been reckoned at 80,000 souls. The town stands on an eminence, and is surrounded by hills covered with fine gardens. It is fortified, but the walls of the city are suffered to go to decay. A. was, at one time, a place of great trade, and the inhabitants still maintain a considerable manufacture of yarn, Angora stuffs and shawls. It is supposed that not less than 15,000 pieces of these latter articles are yearly made in the city. The shawls are peculiarly fine, rivalling even those of Cashmere, and fabricated from the hair of the Angora goat. The surrounding country is chiefly devoted to the raising of wheat. Opium, however, is cultivated in the district, and large quantities of honey and wax are obtained from the extensive bee-hives in and near the city. A. stands on the very site of the ancient Ancyra, in E. lon. 33° 18', N. lat. 40° 4'. Numerous caravans continually pass through this city.

ANGRA; a seaport on the S. side of Terceira, one of the Azores, of which A. is the capital; lon. 27° 14' W.; lat. 38° 38' N.; pop. 11,000. The town is well built, and has 5 parishes, a cathedral, 4 monasteries, and as many nunneries. It is defended by a strong castle and deep ditch. King Alphonso VI was imprisoned in this castle by his brother, Peter II, in 1668. The town derives its name from *angra*, a creek, bay, or station for shipping; this bay being the only convenient harbor in all the Azores. The English, French and Dutch have consuls residing here.

ANGUILLA; the most northerly of the

Caribbee islands, so named from its form. It was discovered in 1650, by the English. In 1745, the militia defended it against the French. Some sugar is raised here. Lon. $63^{\circ} 10' W.$; lat. $18^{\circ} 15' N.$ —There is a rocky island of the same name, one of the smaller Bahama or Lucayos islands; 20 miles long, 5 broad; lon. $78^{\circ} 50' W.$; lat. $23^{\circ} 30' N.$ —*Anguilla bay* lies on the north side of the island of St. John's, in the gulf of St. Lawrence, opposite the Magdalen isles.—*Anguilla cape*; a promontory on the west side of Newfoundland, in the gulf of St. Lawrence.

ANGUINUM OVUM, the adder-stone; a fabulous kind of egg, said to be produced by the saliva of a cluster of serpents, and possessed of certain magical virtues. The superstition in respect to these was very prevalent among the ancient Britons, and there still remains a tradition of it in Wales. This wondrous egg seems to have been nothing more than a bead of glass, used by the Druids as a charm to impose on the people, whom they taught to believe that the possessor of it would be fortunate in all attempts. The method of ascertaining its genuineness was no less extraordinary than the powers attributed to it. It was to be encased in gold, and thrown into a river; and, if it was genuine, it would swim against the stream. Pliny gives a similar account of it, lib. xix. c. 3.

ANHALT. Under this name, the possessions of three different dukes—those of Anhalt-Bernburg, Anhalt-Cöthen and Anhalt-Dessau—are comprehended. Before the right of primogeniture was introduced, in the succession of the German princes, this little country was divided into 4 hereditary sovereignties, but was afterwards reduced to the above-mentioned 3. In April, 1807, the princes of A. took the title of duke. The house has, at present, joined the German confederation, and, together with Oldenburg and Schwarzburg, has the 15th vote in the diet; in the general assembly (*plenum*), however, each of the 3 houses has a separate vote. Each enjoys sovereign power in its own division, yet the 3 together form a confederation, by the terms of which the right of mutual succession is secured to the lines respectively, and the assembly of the states, as well as the public debt of the family, put under the direction of the senior member of the house for the time being, at present the duke of Bernburg. The ducal house bears a common title and arms, and professes the Calvinistic faith. The greater

part of the inhabitants, also, are of the same persuasion. Towards the close of 1825, however, the duke and duchess of Cöthen went over to the Catholic church at Paris. There are also among the inhabitants many Lutherans and a few Jews. The lands of the house of A., comprising about 1030 square miles, with 128,100 inhabitants, are mostly situated between the Hartz and the river Elbe, and are surrounded by the Prussian province of Saxony; they are fertile. The inhabitants are wealthy, and live partly by agriculture and grazing; but, in the vicinity of Bernburg, also by mining. The manufactures are unimportant.

ANHYDRITE, a dry sulphate of lime, found in the salt-mines of Austria and Salzburg, and in limestone at Lockport, New York. It presents several varieties of structure and color. The vulpinite of Italy is the only one used in the arts. This possesses a granular structure, resembling a coarse-grained marble. Its color is grayish-white intermingled with blue. It is cut and polished for various ornamental purposes, under the name of *marmo bardiglio di Bergamo*.

ANICH, Peter; a Tyrolese peasant, astronomer and geographer; born in 1723, at Oberporfess, near Inspruck; died in 1766. Till 28 years old, he was, like his father, a farmer, but very early became an admirer of the sciences. The Jesuits in Inspruck perceived his talents, and gave him instruction in mechanics and mathematics. This was sufficient to induce the young man to undertake the making of a celestial globe, of a terrestrial globe, and of many mathematical instruments. When his teacher, a Jesuit, observed the success of his labors, he recommended him to the empress Maria Theresa, who ordered him to draw a map of the northern Tyrol. The superstition of his countrymen made his labors difficult, and even endangered his life. Finally, the map was finished; but it was found, in Vienna, that it had been executed on too large a scale, and he was commanded to reduce it to 9 sheets. This reduction cost him much labor, and he died before completing it, Sept. 1, 1766. In 1774, the map finally appeared, under the title *Tyrolis geographice delineata a Petro Anich et Blasio Huever, curante Ign. Weinhart*.

ANICHINI, Luigi; a famous seal-engraver, in the time of Michael Angelo. He was a native of Ferrara. His *Interview of Alexander the Great with a High-priest at Jerusalem* was declared by Michael Angelo to be the perfection of his art.

ANIMA MUNDI; the soul of the world or universe; a certain pure, ethereal substance or spirit, which was said, by some ancient philosophers, to be diffused throughout all nature—the living principle of the world, the god of the Pantheists. Plato treats at large of the *ψυχὴ τοῦ κόσμου*, the soul of the world, in his *Timæus*. He is considered, by some, the originator of this idea, but this is not at all probable; on the contrary, it is an ancient idea, prevailing in the systems of certain Eastern philosophers. The Egyptians also adopted it. Many philosophical and philosophico-religious sects entertained the same notion, under a considerable diversity of forms. Many of the first Christian sects believed in the *anima mundi*; and at all times there have existed estimable and religious men and philosophers, who could not believe in a God who exists without the material world, but pervades it every where. Of the most recent philosophers, Schelling has dwelt most on this idea, and incorporated it into his whole system. He calls it *Die Weltseele*. (See *Philosophy*.)

ANIMAL, ANIMAL LIFE. Life, in the earlier periods of natural history, was attributed only to animals. With the progress of science, however, it was extended to plants; and man, who had been hitherto regarded as a distinct order of being, was now considered as but a higher animal, intimately connected with the whole chain of the organized world. The great discoveries in chemistry, magnetism, electricity and galvanism, have shown that those elements and principles, on which rest the laws of life, pervade nature in the most various forms and combinations; that there is no harsh and abrupt distinction between the animate world and the inanimate, but, on the contrary, an intimate connexion between the energy which makes the crystallizing mineral follow the law of the strictest regularity, or the stone fall from the height, and that which makes the heart of man beat.—The difficulty of defining animal life has, therefore, been greatly increased. What is animal life? What constitutes an animal? Since mankind began to cultivate philosophy, they have sought in vain for a definition of life. It would require much more metaphysical discussion, to enter at all satisfactorily into this subject, than the character of the present work allows; and we are constrained to offer the reader only the following remarks on this most interesting subject.—Linnæus defines an animal an organized, living

and sentient being. An animal is indeed organized; but are not vegetables organized also? Animals are endowed with sensation; but are all, without exception? and do not some plants possess this faculty? Locomotion is not a more certain characteristic of animals than life or irritability, for many animals are destitute of this power, and vegetate like plants, the images of torpidity and insensibility. Neither are the chemical characters of animal substances more distinct; animals are chiefly composed of azote, and vegetables of carbon; but, among the latter, some are, like the former, composed principally of azote. In whatever point of view we consider these two kingdoms of nature, we find them blended in so many ways, and separated from each other by such imperceptible gradations, that it is impossible to draw a line, at which we can affirm that animal life ends and the vegetable begins. We cannot, therefore, give a rigorous definition of the animal kingdom, but we may point out certain general characteristics, which clearly distinguish this from the other kingdoms of nature. There are two kinds of motion in animals, one of which is voluntary, and the other mechanical. The latter is involuntary, and belongs to the vegetative life of the animal. By this the vital actions are carried on independently of volition. By this the heart beats, the blood circulates, the food is assimilated. The former is voluntary, and is peculiar to animal life; it cannot exist without a nervous system, or something equivalent, by which the animal perceives and wills. However feeble the manifestations of this will may be, it nevertheless exists in proportion to the simplicity or complexity of the organization of the creature which perceives and wills. Thus the *vibrio* and the *monas*, although apparently destitute of viscera, organs and locomotive apparatus, when they avoid or pursue surrounding objects, act by virtue of the will as completely as the highest orders of organized creatures. One sense is sufficient to produce voluntary motion, and, therefore, to constitute animal life; the *vibrio* and the *monas* have at least one sense analogous to that of touch. This kind of motion may exist without locomotion, as in the oyster.—There is no one organ which characterizes the animal kingdom; there is none which is found in all animals. The head, the stomach, the system of circulation, in a word, all the complicated apparatus of the *mammalia*, for example, disappears in other

classes, or undergoes a thousand various combinations of form and proportion. The organ, of which the slightest injury in one animal produces instant death, may be wounded or even extracted from another without fatal consequences: whilst some are killed by the loss of some parts of the body, others may be cut in pieces, and each fragment becomes a perfect animal.—M. de Lamarck lays down the 9 following characteristics, as common to all animals, and peculiar to them, and constituting, therefore, the distinction between the animal and vegetable kingdoms:—1, that they have parts susceptible of contraction of themselves, and thus the power of moving themselves suddenly and repeatedly; 2, that they have the power of changing place, and of acting at will, if not completely, at least to a great extent; 3, that they perform no motion, total or partial, unless in consequence of certain motives, and that they are able to repeat the motion as often as the exciting cause operates; 4, that they betray no perceptible relation between the motions they perform and the exciting cause; 5, that their solid as well as fluid parts partake of the vital motions; 6, that they nourish themselves with compound substances of a different nature from themselves, and that they digest these substances in order to assimilate them; 7, that they differ from each other in their organization, and in the faculties resulting from this organization, from the most simple to the most complicated, so that their parts cannot be mutually transformed into each other; 8, that they are able to act for their own preservation; 9, that they have no predominant tendency in the developement of their bodies to grow perpendicularly to the plane of the horizon, or to preserve a parallel direction in the vessels which contain their fluids.—Linnaeus was the first who ventured to include man in the systematic classification of animals; and, though he was violently assailed for thus degrading the dignity of the human race, he has been followed, in this arrangement, by succeeding philosophers. Cuvier has, however, assigned him a distinct order, *bimana*, by which means he is separated from monkeys, with whom Linnaeus had classed him.—Linnaeus divided the animal kingdom into 6 classes, as follows:—*. Such as have the blood warm and red; the heart with two auricles and two ventricles.—I. *Mammalia*; viviparous; suckle their young.—II. *Aves*, birds; oviparous; have neither teats nor milk.—**.

Such as have the blood red and cold; single heart, with one auricle.—III. *Amphibia*; oviparous; without teats, milk, hair or feathers.—IV. *Pisces*, fishes; breathe by gills, a sort of external lungs; oviparous; their organs of locomotion, fins; their covering, scales; they emit no sound, and inhabit the water.—***. Such as have a single heart, without auricles; blood cold and white, consisting of a sort of transparent lymph. (These characters have since been found to be incorrect; for some of these animals have red blood, and some have no heart at all.)—V. *Insecta*; provided with antennæ; breathe by lateral stigmata; all have feet, most have wings, and undergo transformations.—VI. *Vermes*, worms; provided with tentacula; no feet or fins.—The progress of natural history has revealed some defects in the system of Linnaeus. Cuvier has corrected its errors and supplied its deficiencies. His system is as follows:—*. *Vertebral animals*. They have an internal skeleton, composed of a series of bones attached to each other, and called the *vertebral column*. It is perforated by a canal containing the substance from which the nerves, or organs of sensation, take their rise. This column is terminated at one end by the head, (which is, perhaps, only a vertebra fully developed), and at the other by the *os coccygis*, or tail. Two cavities, the chest and the abdomen, contain the principal organs of life. The sexes are two, male and female; testicles belong to the former, ovaries to the latter; a spleen, liver, pancreas, jaws incumbent, transversal, and provided with teeth (which are imperfectly developed in the beak of birds), not more than four limbs, constitute the character of this class. The organization of the vertebral animals presents a striking analogy throughout.—I. *Mammalia*; producing their young alive, which they suckle by teats; having warm blood; a heart with two ventricles; lungs; a convoluted brain, with a *corpus callosum*; five senses; a muscular diaphragm between the chest and the abdominal cavity; seven cervical vertebrae (one species excepted, which has nine). The *mammalia*, among which man is included, are generally the most intelligent of animals: they are divided into orders, according to the structure of their teeth and their feet, which organs determine the habits and manner of life in animals.—II. *Birds*, *aves*; oviparous; the eggs covered with a calcareous shell; without milk or teats; heart and blood like those of the *mammalia*; lungs; no diaphragm; no teeth

apparent on the jaws, which are called the *beak*; feathers and wings; projecting sternum, which completes the apparatus for flying; a gizzard for a stomach; no external ear. These animals are the only ones which sleep standing; they are divided into orders, according to the structure of the beak and feet.—III. *Reptiles*; oviparous; the eggs without shells, and sometimes fecundated without coition; single heart; blood almost cold, and red. The reptiles indisputably form a separate class, but they have few common characters peculiar to them; some are enclosed in a bony shell; others are naked; and others are covered with plates, scales, or rings. There are some which have limbs; others, without the least trace of them; and others, in which the number and structure of the limbs vary. Some undergo transformations, like insects, and are, at one period of their life, real fish, and for the rest of their days, little quadrupeds.—IV. *Pisces*, fish; oviparous; eggs without shell or albuminous envelope, and fecundated without coition; single heart; blood cold and red; no real limbs, their place being supplied by vertical fins: this vertical disposition of the fins is sufficient to distinguish, at the first glance, fishes from the cetaceous animals, which have horizontal fins; the body is naked, when not covered with scales; the skeleton is destitute of solidity, and, in the lower species, is reduced to a mere cartilaginous vertebral column.—**. *Mollusca*; no skeleton; the muscles attached to a soft skin, which is sometimes naked, and sometimes covered with shells of very various forms. The nervous system, in these animals, is confounded with the other parts; none of the organs is protected by a bony case; the nervous system is composed of several *ganglia*, a sort of little brain, connected by sensitive filaments. The organs of nutrition and generation are very complicated in some; they appear to have but two senses, touch and taste, but some have also sight; they breathe by gills, and have sometimes three hearts. Cuvier divides the *mollusca* into six orders: the *cephalopoda*, *pteropoda*, *gasteropoda*, *acephala*, *branchiopoda*, and *cirrhopoda*.—***. *Articulated*. Their nervous system is composed of two long cords, running the whole length of the body, interrupted, at intervals, by knots, or *ganglia*, the first of which is always the largest; the blood is cold, generally a white lymph, except in the first order, the *annelides*, in which it is red. The body and limbs, when

they have any, are composed of rings. This great division will probably undergo some modifications hereafter.—I. *Annelides*; heart fleshy, visible; blood red; breathe by gills, the position of which is various; body composed of articulated rings; no feet, sometimes thread-like members in their stead. The *annelides* are hermaphrodites, and probably oviparous.—II. *Crustaceous*; heart composed of one fleshy ventricle; blood white, circulates; breathe by gills; provided with antennæ, commonly with four, and several transverse jaws; they are oviparous, and the sexes are distinct.—III. *Arachnides*, spiders; head and thorax united; no antennæ, nor gills; breathing by tracheæ, or by pulmonary bags; distinct sexes; eggs; the young undergo no complete transformation after they are hatched; number of eyes and feet variable.—IV. *Insects*; no heart; lymph instead of blood; breathe by tracheæ; body divided into three important parts,—the head, which supports the antennæ, and compound eyes, consisting of numerous facets; the thorax, to which are attached the feet, to the number of six, and the wings, to the number of four or two; finally, the abdomen, containing the principal viscera: sexes distinct; oviparous; generate by copulation; the young undergo wonderful transformations. Insects propagate but once during their life. They are divided into orders, according to the structure of the mouth, of the tarsus or foot, of the antennæ, and of the wings.—****. *Radiated*. This class is distinguished from the 3 preceding almost entirely by negative characters, the animals included in it having few characters in common. Abortions of nature, provided only with the incipient forms of organization, they show no traces of circulation, no organs of sense, no distinct nervous system; the organs of respiration are indistinct; those of digestion sometimes complicated, sometimes consisting only of a sack without an outlet; sometimes exhibiting organs, of which the action is visible, but the functions unknown; some of them manifest a tendency to the radiated formation, and many are composed of rays, that is, of tentacula diverging regularly from the centre to the circumference; but this character is far from being universal, since many of this class are perfectly spherical or membranous, without the least tendency to the radiated structure. They all inhabit the water.—I. *Echinodermata*; distinct organs of respiration and circulation; the viscera con-

tained in an interior cavity formed by the spines disposed in rays, and sometimes star-formed; they inhabit the sea.—II. *Intestini*, intestinal worms; long body, without limbs; no distinct viscera, except a long digestive canal; parasites of other animals, in whose bodies they are found; it is not known how they enter them, nor is any thing known of their manner of respiration and generation.—III. *Acalephæ*, sea-nettles; body orbicular or radiated, containing a digestive sack; no organs of circulation, respiration or generation distinguishable; some of them, however, emit a substance, which might be taken for eggs, and which, when touched, excites a tingling sensation in the skin, similar to that produced by nettles; the mouth serves as an anus; they inhabit the sea.—IV. *Polypi*; body soft, contractible, forming an intestinal sack, which presents the appearance of an orifice surrounded by tentacula; no appearance of organization which would lead us to suppose them endowed with any sense except that of touch; they are found only in the water, but inhabit both salt and fresh.—V. *Infusoria*; bodies transparent, contractible, microscopic; no organ discernible.—For the mental powers of animals, see the article *Understanding*.

ANIMAL HEAT is that property of all animals, by means of which they preserve a certain temperature, which is quite independent of that of the medium by which they are surrounded, and appears rather to be in proportion to the degree of sensibility and irritability possessed by them. It is greatest in birds. The more free and independent the animal is, the more uniform is its temperature. On this account, the human species preserves a temperature nearly equal, about 96—100° Fahr., in the frozen regions at the pole, and beneath the equator; and on this account, too, the heat of the human body remains the same when exposed to the most extreme degrees of temperature; in fact, cold at first rather elevates, and extreme heat rather depresses the temperature of the human body. Fordyce and Blagden endured the temperature of an oven heated almost to redness, and two girls in France entered a baker's oven heated to 269° Fahr., in which fruits were soon dried up, and water boiled. A Spaniard, Francisco Martinez by name, exhibited himself, a short time since, at Paris, in a stove heated to 279° of Fahr., and threw himself, immediately after, into cold water. Blagden was exposed in an oven to a heat of 257°, in which water

boiled, though covered with oil. There is also a remarkable instance of a similar endurance of heat by the *convulsionnaires*, as they were called, upon the grave of St. Medardus, in France. A certificate signed by several eye-witnesses, among whom were Armand, Arouet, the brother of Voltaire, and a Protestant nobleman from Perth, states that a woman named la Sonet, surnamed the *salamander*, lay upon a fire 9 minutes at a time, which was repeated four times within two hours, making, in all, 36 minutes, during which time fifteen sticks of wood were consumed. The correctness of the fact stated is allowed even by those opposed to the abuses in which it originated. The flames sometimes united over the woman, who seemed to sleep; and the whole miracle is to be attributed to the insensibility of the skin and nerves, occasioned by a fit of religious insanity. These facts are the results of a law of all living substances, viz., that the temperature of the living body cannot be raised above certain limits, which nature has fixed. There is also an increased flow of perspiration, by means of which the heat of the body is carried off. The extreme degrees of cold which are constantly endured by the human frame without injury are well known, and are to be explained only by this power in the living body to generate and preserve its own heat. The greater the irritability of individuals, whether from age, sex, or peculiarity of constitution, the greater the warmth of the body: it seems also to depend, in part, upon the quickness of the circulation of the blood: thus children and small animals, whose circulation is lively, feel the cold least. The heat and the power of preserving it differ also in the different parts of the body; those appearing to be warmest in which there is the most copious supply of blood, as the brain, the head and neck, the lungs and central parts of the body. We see, also, that when the irritability of the body, or of any part of it, is particularly increased, the heat of the part undergoes a similar change. Increased activity and motion of the body, as in walking, running, &c., and diseases of increased excitement, as fever and inflammation, produce a similar increase in the temperature of the body. All this justifies the conclusion, that animal heat depends chiefly upon the irritability of the body, and is thus most intimately connected with the state of the nervous system. This view is confirmed by the late experiments of Brodie, who

ascribed this power of the living body to the influence of the brain. He destroyed the brain of a rabbit, and kept up the respiration by artificial means ; but the heat of the animal regularly diminished.

ANIMAL MAGNETISM. (See *Magnetism*.)

ANIMAL MATTER is the protection, the residence and the visible form of animal life. The simple elementary substances are combined by the powers of life, according to the objects for which it was destined, into various animal substances, falling naturally under certain divisions, which all, however, in some respects, comprehend each other. These divisions are as follows :—*a. FLUIDS.* These have no distinct form or organization, and yet possess properties, by means of which, when acted upon by the vital powers, they are capable of forming all the various organs of the body ; and it is surely a most unnatural view of them to regard them as destitute of life. In the following list of animal fluids, which, in the processes of life, pass constantly the one into the other, we find all the fluid parts or kinds of animal matter : they are chyme, chyle, lymph, venous and arterial blood, and the various secreted and excreted fluids.—*b. SOLIDS.* These comprehend all the solid parts of the animal frame, both hard and soft, and are of nearly the same essential structure in all animals, although variously arranged, according to their species. A minute description of all these belongs to anatomy ; we shall merely enumerate them. They appear in the form of, 1, bones, constituting the basis, the frame, of the animal, and found in all animals till we come to shell-fish (whose shells may be even regarded as external bones), and to still inferior animals, possessing no substitute for bones ; 2, ligaments and fibrous membranes, connecting and covering them ; 3, muscles, which move them, and place the body and its limbs at the command of the animal ; 4, fat and marrow, which soften and lubricate all the various parts of the body ; 5, nervous or medullary matter, constituting the brain and nerves, in which the vital power seems more particularly to reside ; 6, the cellular substance, or membrane, which pervades all parts of the frame, and serves to connect them, and to furnish with the fat, which fills its cells, a soft bed for the vessels, nerves, &c ; 7, the mucous membranes, lining the whole body, from the nose and mouth to the parts at which all evacuations take place, and thus coating the mouth, throat, lungs, stomach and bowels,

in which the important functions of digestion and respiration are performed ; 8, the serous membranes, which line all the large cavities, and which, by the soft fluid that always moistens their surface, render easy the motion of all the internal organs upon each other ; 9, the vascular system, or vessels of all descriptions, conveying the blood to all the organs of the body, and returning it from them to the heart and lungs ; and, 10, the glandular system, by means of which various fluids important to life are separated from the blood, or rather formed from it by a new composition of its original elements. These various classes of animal matter comprehend all the various forms, in which it appears in all animals of all kinds ; the heart of a frog and of a philosopher being composed of similar muscular fibres, and their brains of similar nervous matter. These obvious component parts of animals are, however, separable by the art of the chemist into more simple and ultimate elements. The following are all that are at present known to exist, and of these some are peculiar to animals, while others enter, more or less, into the composition of all parts of the creation. They are, 1, iron, which is found chiefly in the blood, in the state of an oxyde ; 2, lime, which enters largely into the composition of bones, shells, &c. ; 3, silex, in the enamel of the teeth ; 4, water, which gives their liquid character to all the animal fluids ; 5, air is found, mixed with watery vapor, in the various cavities of the body ; 6, soda, united with various acids, in all the various fluids of the body ; 7, ammonia, in the sweat, urine, &c. ; 8, sulphur ; 9, phosphorus, in the bones, &c. ; 10, carbon ; 11, various acids, as the phosphoric, muriatic, uric, lactic, formic, &c., which are found, variously combined, in most of the solid and fluid parts of the body ; 12, gelatin, or glue ; 13, albumen, constituting the chief part of the transparent and colorless membranes, and the fluids which moisten them ; 14, fibrine, constituting the basis of all the muscles, ligaments, &c., and the most important ingredient in the composition of the blood. Most of these substances are again susceptible of still farther analysis, by which they may be resolved into the simple gases, as azote, hydrogen, oxygen, &c. ; so that it appears, that the ultimate elements of all parts of the visible world are nearly the same in their essential character.

ANIMALCULE. (See *Microscopical Animals*.)

ANIME; a resin exuding from the trunk of a large American tree, called by Piso *jetaiba*, by the Indians, *courbaril*, a species of *hymenæa*. The tree is found particularly in New Spain and the Brazils. A superior kind is sometimes imported from the East.

ANISE-SEEDS are the production of an umbelliferous plant (*pimpinella anesum*), which grows wild in Egypt, Syria, and other eastern countries. They are roundish and striated, flattened on one side, and pointed at one end; and of a pale color, inclining to green. Attempts were made, more than 200 years ago, to cultivate anise in England, but the summers are seldom warm enough to bring the plant to perfection. It has, consequently, been found necessary to import the seed from Malta and Spain, where it is cultivated to a considerable extent. Anise-seeds have an aromatic smell, and pleasant, warm taste, accompanied with some degree of sweetness. They have long been employed in medicine, and have been considered useful in diseases of the lungs and complaints of the stomach. They give out all their virtue to rectified spirit; and a spirituous water is kept in the shops as a cordial, which is prepared from a mixture of equal parts of anise-seed and angelica.

ANJOU; an ancient province of France, 75 miles in length and 60 in breadth, now forming, with some of the late provinces in its neighborhood, several departments, viz., that of the two Sevres, of the Indre and Loire, the Sarthe, the Loire, but chiefly that of Mayenne and Loire, in which also the old capital is situated. The noble river Loire divided the old province. The entire district contains about 256 French square miles, and is watered by upwards of 40 rivers. A. is very fertile, producing all sorts of grain, fruits, hemp and flax; it contains excellent pastures and rich vineyards. Much brandy is sent from hence to Nantes and Paris. A. contains, also, coal, lead and tin. It manufactures much. The chief town is Angers, and the population was estimated, prior to the revolution, at upwards of 90,000 families. St. Louis bestowed this province on his brother, Charles, in 1246; but, in 1328, it again fell to the crown with Philip IV. John I. raised it to the rank of a ducal peerage, and gave it to his son, Louis I; but, in 1480, it reverted once more to the crown. Different princes of the blood bore, subsequently, the title of *Anjou*, till Louis XV. conferred it, together with that of Provence, on his grandson, Louis

Stanislaus, count of Provence, afterwards Louis XVIII. (See the history of France in the article *France*.)

ANKERSTREM, John Jacob, the murderer of Gustavus III, was, at first, a page in the Swedish court, afterwards an inferior officer in the regiment of body guards, and, later, an ensign in the royal guards. His father was lieutenant-colonel, and knight of the order of the sword. He was of a passionate and gloomy character, and maintained a continual opposition to the measures of the king, particularly those for limiting the power of the senate and nobles. The loss of a suit aggravated his animosity against the king. In 1783, he received his dismissal, married, and retired to the country; but, in 1790, returned to Stockholm. He here united himself with several of the nobility, particularly the counts Horn and Ribbing, barons Bidke and Pechlin, lieutenant-colonel Liljehorn and others, and they decided upon the death of the king. A. entreated that the murder might be left to him; but Ribbing and Horn putting in their claims, they cast lots, and it fell to A. The king had just assembled a diet in Gefle, 1792, and the conspirators went there. Here, however, they found no opportunity to execute their plan. The measures of the diet exasperated them still more. The king returned to Stockholm, and it was known that he would be present at a masquerade, March 15. Here A. discharged a pistol at him, and wounded him mortally. (See *Gustavus III*.) He was discovered, arrested, and confessed his crime, but refused to betray his accomplices. April 29, 1792, he was condemned to death, scourged during several days, and dragged upon a cart to the scaffold. Through the whole of his sufferings he showed the greatest calmness, boasted of his deed, and ended his life at the age of 31 years. The counts Horn and Ribbing, and colonel Liljehorn, were banished for life.

ANLACE; a falchion or sword, shaped like a sithe.

ANNA IVANOWNA, empress of Russia; born in 1693; the daughter of Ivan, the elder brother of Peter the Great. She was married to the duke of Courland, was left a widow, and, in 1730, ascended the throne of the czars, under singular circumstances. Peter II, son of the unfortunate Alexis, died in his 16th year, and the young princes, Ivan and Basil Dolgorucky, administered the government, under the direction of the old chancellor Ostermann. As the latter flat-

tered himself that he should retain his authority under a princess to whom he had given the first instruction in reading, he used his whole influence to procure the crown for the duchess of Courland. He gained over the synod, and the nobles assembled at Moscow, and thus A. was preferred to both the daughters of Peter the Great, and the prince Basil Dolgorucky was appointed to inform her of the choice of the nation. When he entered her apartment, he found a poorly-dressed man in the room, to whom he made a sign to withdraw. The other showed no inclination to obey, and, when Dolgorucky took his arm to turn him out of the door, he was prevented by A.; it was Ernestus John von Biren, the favorite of his sovereign, whose influence was soon all-powerful in Russia. A., at first, promised to remove her favorite, and to limit the unrestrained powers of the czars, but had scarcely ascended the throne, when she refused to do either, and proclaimed herself autocrat of all the Russias. Biren now put no limits to his ambition. The Dolgoruckys were his first victims. Their friends experienced a similar fate, notwithstanding A.'s earnest remonstrances. (See *Biren*.) In 1737, she forced the Courlanders to choose him duke, and nominated him, at her death, regent of the empire during the minority of prince Ivan (of Brunswick). She died in 1740.

ANNABERG; one of the most important manufacturing towns of the Erzgebirg. Mining is also carried on here, though to a less extent. The number of inhabitants is about 5000. It was, at first, only a mining place. Afterwards, manufactures were introduced, particularly those of various kinds of lace, of which a great part is exported to America. The mines are nearly exhausted. The population of the town was greatly increased by the addition of the Belgians who fled from the persecutions of duke Alva.

ANNALS; a historical account of the affairs of a state, digested in the order of time. The name comes from the first annual records of the Romans, which were called *annales pontificum*, or *annales maximi*, and the compilation of which was the business of the *pontifex maximus*.

ANNAMABÔE; a town of Africa, on the Gold Coast, formerly a very considerable market for slaves. It is a strongly-fortified place, having a port, where, in 1808, a British garrison of 30 men withstood the attacks of 20,000 Ashantees, who were compelled to raise the siege and retire. It is said to contain 10,000 inhabitants.

The fortifications are maintained by the African company at an expense of about 1900*l.* per annum.

ANNAMOOKA, or **ROTTERDAM**; one of the Friendly islands in the Polynesian group of the South sea. Round the island, which is of a triangular form, and about 10 or 12 miles in circuit, lie scattered a number of small isles, sand-banks and breakers. These, together with Middleburg, or Eaowee, and Pylstart, make a group occupying about 3 degrees of lat. and 2 of lon., named, by captain Cook, the *Friendly islands* or *archipelago*, as a firm alliance and friendship seemed to subsist among their inhabitants, whose courteous behavior entitled them to that appellation. Lon. 174° W.; lat. 20° S. The island was discovered by Tasman, a Dutch navigator, in 1643. Cook visited it in 1777.

ANNAPOLIS; city and port of entry, in the county of Ann Arundel, Maryland, on S. W. side of the Severn, 2 miles from its mouth; 28 miles S. S. E. Baltimore, 40 E. N. E. Washington. Lon. 76° 43' W.; lat. 39° N. Population, 2260. It is the seat of the state government, is a pleasant and healthy town, and contains a spacious and elegant state-house, a market-house, a theatre, and 2 houses of public worship. The streets converge to the state-house and to the Episcopal church, as two centres. The shipping owned here, in 1816, amounted to 2,553 tons.—There is another Annapolis, A. Royal, a city of Nova Scotia, on the bay of Fundy; lon. 65° 50' W.; lat. 44° 47' N. The harbor is large and safe.

ANNATES; a year's income due to the pope, on the death of any bishop, abbot, or parish-priest, to be paid by his successor. The *concordata Germaniæ*, in 1448, restored to the pope the right of raising the annates, which had been forbidden by the council of Bale, in 1434. They were made perpetual, by Boniface IX, in 1399. In France, they were finally abolished in 1789. In England, they were at first paid to the archbishop of Canterbury, but afterwards appropriated by the popes. In 1532, the parliament gave them to the crown; but queen Anne restored them to the church, by applying them to the augmentation of poor livings.

ANNE, the last member of the family of Stuart (now extinct) who was seated upon the throne of Great Britain, was born at Twickenham, near London, 1664, 4 years after her uncle, Charles II, ascended the throne. She was the second daughter of James II, then duke of York, and

Anne, his wife, daughter of the renowned Clarendon. Her father had not then gone over to the Catholic church; A., was, therefore, educated according to the principles of the English church, and, in 1683, married to prince George, brother to king Christian V of Denmark. When, in 1688, the party which invited the prince of Orange to dethrone his father-in-law prevailed, A., the favorite daughter of James, wished to remain with her father. But she was, in some measure, forced by Churchill, afterwards duke of Marlborough, to join the triumphant party. After the death of her sister, Mary, in 1694, and that of William III, in 1702, without children, and after she herself, in 1699, had lost her only son, the young duke of Gloucester, she ascended the English throne. Her capacity was but moderate, and she was governed by Marlborough and his wife. The Tories were satisfied to know that the sceptre was in the hands of a daughter of James II, and hoped to see the old royal house revived in her male descendants. The Whigs rejoiced, at least, that the queen, faithful to the triple alliance, opposed the domineering spirit of Louis XIV, in order to defend the liberty of Europe, and to prevent the union of the French and Spanish crowns in one house. She, therefore, took part in the war of the Spanish succession, in which England captured Gibraltar, the only important acquisition of this 11 years' war. During the reign of queen A., England and Scotland were united under the name of *Great Britain*, and, notwithstanding the wishes of the queen for the restoration of her own house to the line of succession, it was settled in the house of Hanover. James in vain attempted a landing in Scotland, and the queen, A., was obliged to sign a proclamation setting a price on his head. Of her 17 children, all died young; and, when left a widow, she would not listen to the entreaties of the parliament (although but 44 years old at the time) to conclude a new marriage, which might throw new obstacles in the way of the restoration of her own family. She now intended to put all power into the hands of the Tories, who were then the majority in the three kingdoms. The duchess of Marlborough lost her influence; Godolphin, Sunderland, Somers, Devonshire, Walpole, Cowper, were superseded by Harley, earl of Oxford, Bolingbroke, Rochester, Buckingham, George Grenville and sir Simon Harcourt, and the parliament was dissolved. Peace was resolved upon. Marlborough was accused, suspended

and banished. Meanwhile A., notwithstanding the measures which she publicly took against her brother, seems not to have given up the hope of securing to him the succession; but the irreconcilable enmity of Oxford and Bolingbroke, the former of whom accused the latter of favoring the pretender, was an insurmountable obstacle. Grieved at the disappointment of her secret wishes, she fell into a state of weakness and lethargy, and died July 20, 1714. The words, "O, my dear brother, how I pity thee!" which she pronounced on her death-bed, unveiled the secret of her whole life. The reign of A. was distinguished not only by the brilliant successes of the British arms, but also as the golden age of English literature, on account of the number of admirable and excellent writers who flourished at this time, among whom were Pope and Addison. It may be considered the triumph of the English high-church party, owing to her strong predilection for the principles by which it has always been actuated. Her private character was amiable, but her good sense was rendered ineffectual by want of energy. The goodness of her disposition obtained for her the title of the *good queen Anne*. She was an excellent wife and mother, and a kind mistress.

ANNE of Austria, queen of France, was the daughter of Philip III, king of Spain, and, in 1615, married Louis XIII. On her cousin's death, his son being under age, she became sole regent of France during the minority. She, however, brought upon herself the hatred of the nation, by her boundless confidence in cardinal Mazarin, and was forced to flee from Paris. In a little time, matters were accommodated; and, when her son took the reins of government into his own hands, in 1661, she gave up all concern with public affairs, and spent the remainder of her life in retirement. She died in 1666.

ANNE of Cleves, the wife of Henry VIII, king of England, was the daughter of John III, duke of Cleves. The king asked her in marriage after having seen a portrait of her, drawn by Holbein; but it was not long before he was disgusted with the *Flanders mare*, as he called her, and a divorce ensued; when Anne, without seeming disconcerted, returned to her own country, where she died in 1557.

ANNEALING, or NEALING, as it is called by the workmen, is a process particularly employed in the glass-houses, and consists in putting the glass vessels, as soon

as they are formed, and while they are yet hot, into a furnace or oven, not so hot as to remelt them, in which they are suffered to cool gradually. This is found to prevent their breaking so easily as they otherwise would, particularly on exposure to heat. Unannealed glass, when broken, often flies into powder, with great violence, and, in general, it is in more danger of breaking from a very slight stroke than from one of considerable force. An unannealed glass vessel will often resist the effect of a pistol-bullet dropped into it; yet a grain of sand, falling into it, will make it burst into small fragments, and, which is very curious, it will often not burst until several minutes after being struck. The same phenomena are still more strikingly seen in glass-drops or tears: they are globular at one end, and taper to a small tail at the other: they are the drops which fall from the melted mass of glass on the rods, on which the bottles are made, into the tubs of water, which are used in the work. Those which remain entire, after having fallen into the water, show the properties of unannealed glass in the highest degree. They will bear a smart stroke on the thick end, but, if the small tail is broken, they burst into powder, with a loud explosion. The reason of this singular fact is differently given. A similar process is used for rendering cast-iron vessels less brittle.

ANNIUS of Viterbo, or JOHN NANNI, a Dominican friar, was born at Viterbo, in 1432. He was distinguished for his learning, and was made master of the sacred palace by pope Alexander VI. He died, as was suspected, of poison, administered at the instigation of Cæsar Borgia, in 1502. He employed his leisure in the construction of fragments, which he palmed on the world as the remains of several ancient writers, in "Seventeen Books of Antiquities." The first edition of this work, dedicated to Ferdinand and Isabella, was printed at Rome, in 1498, and, in 1552, republished in Svo. at Antwerp. The imposition passed for some time; and, when discovered, the Dominicans, anxious to save the credit of their order, pretended that Annius copied his inventions from a manuscript which he found in the Colbertine library; but, as this manuscript was never produced, the dishonor was ineffaceable. The success and magnitude of the forgery render it exceedingly remarkable, as an instance of great but unprincipled ability.

ANNO, archbishop of Cologne, died in 1075. The Hymn which celebrates his

praises was composed not long after his death. The last edition of it was published by doctor Goldmann, Leipsic, 1816. The political importance of St. A., as chancellor of the emperor Henry III, and afterwards as administrator of the empire during the minority of Henry IV; his bold spirit of government, as well as the dignity of his holy life; his paternal care for his archbishopric; the zeal with which he labored for the reformation of the monasteries, and established new ones, as well as churches,—gained him the character of a saint. The Hymn of St. Anno begins with the popular traditions of Germany, goes over to the history of the archiepiscopal seat at Cologne, of its 33 bishops before A., among whom were 7 saints, and of their residence in the city of Cologne, on the Rhine. The poet then describes the secular and spiritual government of the saints, and his grief on account of the madness of his countrymen, continually at war, and mutually destroying each other by internal discord. In despair at not being able to change this state of things, the German patriot becomes weary of life, and dies of grief at the ingratitude of his contemporaries, whom he had zealously striven to benefit. This Hymn is the only poetical monument, of importance, of the German national literature of the 11th century.

ANNUITIES are periodical payments of money, amounting to a certain annual sum, and continuing either a certain number of years, as 10, 20 or 100, or for an uncertain period, to be determined by a particular event, as the death of the annuitant, or that of the party liable to pay the annuity, or of some other person, or indefinitely; and these last are called *perpetual annuities*. The payments are made at the end of each year, or semi-annually, or at the end of every quarter, or at other periods, according to the agreement upon which the annuity arises; and, where it is liable to cease upon the happening of an event, the time of the occurrence of which is uncertain (e. g., the death of a person), and such event happens after the expiration of a part of the time between one payment and another, neither the annuitant nor his heirs will be entitled to any proportional part of a payment for such time, unless some express provision is made for this purpose in the contract. The probability of the loss of such fractional part is to be taken into consideration in estimating the present value of the annuity; e. g., if the life in question is, according to the tables of longevity, good

for 54 years, an annuity for such life is worth more than if it were good for only just 5 years, since the probability of its continuing 6 years is greater.—As an annuity is usually raised by the present payment of a certain sum, as a consideration whereby the party making the payment, or some other person named by him, becomes entitled to an annual, semi-annual, quarterly or other periodical payment of a certain sum, for a stipulated number of years, or for a period to be determined by the happening of a certain event; the rules and principles by which this present value is to be computed have been the subjects of much scientific investigation. The present value of a perpetual annuity is evidently a sum of money that will yield an interest equal to the annuity, and payable at the same periods; and an annuity of this description, payable quarterly, will evidently be of greater value than one of the same amount payable annually, since the annuitant has the additional advantage of the interest on 3 of the quarterly payments, until the expiration of the year; or, in other words, it requires a greater present capital to be put at interest, to yield a given sum per annum, payable quarterly, than to yield the same annual sum, payable at the end of each year.—The present value of an annuity, for a limited period, is a sum which, if put at interest, will, at the end of that period, give an amount equal to the sum of all the payments of the annuity and interest; and, accordingly, if it be proposed to invest a certain sum of money in the purchase of an annuity, for a given number of years, the comparative value of the two may be precisely estimated, the rate of interest being given. But annuities for uncertain periods, and particularly life annuities, are more frequent, and the value of the annuity is computed according to the probable duration of the life by which it is limited. Many such annuities are granted for public services. Of this description are the pensions granted by the acts of the congress of the U. States to surviving officers and soldiers of the army of the American revolution. Many such are granted by every government, and, as these do not arise from a specific contract, and are not usually subjects of purchase (the acts of congress, especially, by which those of the U. States are created, contain provisions to prevent their sale and transfer from the original grantees), their precise value is not often a subject of investigation. But life annuities are often created

by contract, whereby the government or a private annuity office, agrees, for a certain sum advanced by the purchaser, to pay a certain sum annually, in yearly, quarterly or other periodical payments, to the person advancing the money, or some other annuitants named by him, during the life of the annuitant; or the annuity is granted to the annuitant, his heirs and assigns, during the life of some other person, or during two or more joint lives, or during the life of the longest liver or survivor among a number of persons named in the act or agreement whereby the annuity is raised. Such annuities are usually made transferable, and are sold and purchased in the market as a species of public stocks. When granted by a government, they are generally one mode of raising loans; when created by a contract with a private corporation or company, their object usually is, to give the annuitant the use, during his life, not only of the income of his capital, but of the capital itself.—If a person, having a certain capital, and intending to spend this capital and the income of it during his own life, and leave no part to his heirs, could know precisely how long he should live, he might loan this capital at a certain rate during his life, and, by taking every year, besides the interest, a certain amount of the capital, he might secure the same annual amount for his support during his life, in such manner that he should have the same sum to spend every year, and consume precisely his whole capital during his life. But, since he does not know how long he is to live, he agrees with the government, or an annuity office, to take the risk of the duration of his life, and agree to pay him a certain annuity during his life, in exchange for the capital which he proposes to invest in this way. The probable duration of his life, therefore, becomes a subject of computation; and, for the purpose of making this calculation, tables of longevity are made, by noting the proportions of deaths, at certain ages, in the same country or district. A table of this sort was made by professor Wigglesworth, of Cambridge university, and published in the Transactions of the American Academy, vol. ii, p. 133, and republished in the Massachusetts Reports, vol. x, p. 313. This table is very much used in estimating the value of life-estates and annuities in the U. States. The value of an annuity will depend, also, in some degree, upon the responsibility of the government or company agreeing to pay it. An annuity guaranteed by a pledge of

real estate is worth more than one of the same amount resting upon the mere promise of a government or private company. Accordingly, for the purpose of raising money upon better terms, that is, of selling the annuity for a greater present value, some of the governments of Europe have occasionally pledged their domains or the income of certain taxes, to secure the payment of the annuities. (For another species of life annuities, see *Tontine*.)

ANNUNCIATION; the declaration of the angel Gabriel to the virgin Mary of the incarnation of Christ in her womb.—*Luke* i. 26—38.

ANNUNCIATION DAY; a feast of the church, in honor of the annunciation, celebrated in the western churches March 25. The institution of this festival is generally assigned to the 7th century.

ANODYNES (from the Greek ἄδύνη, *pain*, and the privative α); means for soothing pain. As the pain may arise from very different causes, the means for counteracting it must be very different. Thus, for instance, a pain may be produced by inflammation; and, in this case, cooling means, lukewarm poultices, sometimes even bleeding or purging, will be the proper anodynes. At other times they should be of an inflammatory kind; for instance, in debility of the nerves, cramps, or spasms. In the stricter sense, we understand by anodynes such remedies as lessen the susceptibility to painful impressions, by diminishing the sensibility of the nerves. In early times, when the doctrine of poisons and antidotes was more attended to than any other part of medicine, the soothing quality of many simples was also more closely observed, and a particular class was formed in this way. As this property existed to a high degree in opium, then already in use, it not only obtained the first place in this class of simples, but the name *anodyne* was given to all mixtures containing it. The use of anodynes is proper only when the cause of pain cannot be removed, or not so soon as its violence requires, or where the pain itself is more injurious than the cause which produces it; e. g., when it prevents a favorable crisis, by rendering the patient unable to sleep.

ANointing. From time immemorial, the nations of the East have been in the habit of anointing themselves for the sake of health and beauty; and to anoint a guest, was to show him one of the highest marks of respect. In the Mosaic law, and several ancient religions, a sacred character was attached to the anointing of the

garments of the priests, and things belonging to the ceremonial of worship. This could be done only with oil made for the purpose, and signified a consecration of the articles to the service of religion. The Jewish priests and kings were anointed when inducted into office, and were called the *anointed of the Lord*, to show that their persons were sacred, and their office from God. In the Old Testament, also, the prophecies respecting the Redeemer style him, on account of his royal descent and his dignity, *Messias*, that is, the *Anointed*. The custom of anointing priests still exists in the Roman Catholic church, and that of anointing kings in Christian monarchies. In the Catholic church, the ordaining bishop anoints with the holy oil called *chrism* (q. v.) the palm of both hands, the thumb and the forefinger (by which the priests hold the host), of the person to be ordained; and thus, according to the expression of the ritual of ordination, the hands receive power to bless, to consecrate, and to make holy. If a clergyman is excommunicated, these spots are rubbed off. (For the ceremony of anointing kings, see *Coronation*.) The Greeks and Romans, particularly the former, anointed themselves after the bath, and thus gave a yellow color to the body. Perhaps in order to imitate this color, perhaps to make the figure look softer, and to deprive it of the harsh white color, they often oiled their statues. The remains of the oily matter used are still sometimes to be seen. Athletes anointed themselves, in order to render it more difficult for their antagonists to get hold of them.

ANOMALY; the deviation from a rule. That which deviates is called *anomalous*. We use this expression in this signification in grammar, where it is opposed to *analogy*. It is also used in astronomy, to denote the deviation of the planets from the aphelion (or, rather, according to the modern usage, from the perihelion), which is owing to their unequal velocity.

ANOMÆANS; the name by which the stricter Arians were called in the 4th century, in contradistinction to the *Semi-Arians*.

ANONYMOUS (from the Greek); literally *without name*; also, a person whose name is unknown, or who keeps his name a secret, e. g., the author of an *anonymous* writing. *Pseudo* is an epithet applied to an assumed name. Writers often conceal themselves under a *pseudo* or false name, which they retain as authors, even when their true name has long been known. It was some time since decided

by a legal tribunal at Stuttgart in Germany, that it was not lawful for a third person to put the pseudo name of another known writer before his own work. The knowledge of the anonymous and pseudonymous authors is indispensable to the bibliographer. (See Barbier's *Dictionnaire des Ouvrages Anonymes et Pseudonymes, composés, traduits ou publiés en Français et en Latin*, with historical and critical notes, 2d ed., Paris, 1822—1824, 3 vols.) Authors often keep their names secret from political motives, e. g., Junius. (q. v.)—In history, we call *pseudo*, impostors who act a political part under a feigned name; for instance, the pseudo Sebastian in Portugal, the pseudo Demetri in Russia, pseudo Woldmar in Brandenburg, the pseudo Smerdis in Persia.

ANQUETIL DU PERRON, Abraham Hyacinthe; one of the most distinguished Orientalists of the 18th century; born in Paris, Dec. 7, 1731; studied theology at the university there, and afterwards at Auxerre and Amersfort; devoted himself with ardor to the Hebrew, Arabian and Persian languages, and returned to Paris in order to study them with more advantage. Here his assiduous attendance at the library excited the attention of the abbé Sallier, keeper of the manuscripts, who introduced him to some of his friends, by whose means the young A. obtained a small salary, under the title of a student of the Oriental languages. Having accidentally laid his hands on some fragments of a manuscript of the *Zend-Avesta*, India became the object of his thoughts, and he cherished the hope of discovering there the holy books of the Parsees. In the harbor of l'Orient, an expedition was preparing for the East Indies, but the endeavors of his protectors to procure a passage for him were fruitless. A. immediately went to the recruiting captain, enlisted as a private soldier, and set out from Paris, with his knapsack on his back, in 1754. Struck with such extraordinary zeal for science, the government allowed him a free passage and a salary. Arrived at Pondicherry, he learned the modern Persian, and then went to Chandernagore, where he hoped to study the Sanscrit. But sickness and the war between France and England frustrated his hopes. Chandernagore was captured, and A., not to lose the whole object of his voyage, returned on foot to Pondicherry, and embarked for Surat. But in order to explore the interior, as well as the coast of Coromandel, he landed at Mahé, and journeyed on foot to Surat. Here he succeed-

ed, by perseverance and address, in overcoming the scruples of some priests of the Parsees (Destour). They instructed him so far in the Zend and Pehlwi, that he was able to translate the Dictionary and some other works from this language. He then resolved to go to Benares, to study the languages, the antiquities, and the sacred laws of the Hindoos, when the capture of Pondicherry forced him to return to Europe. He visited London and Oxford, and returned to Paris in 1762, with 180 manuscripts, and other curiosities. The abbé Barthélemy and his other friends obtained for him a salary, with the office of interpreter of the Oriental languages, at the royal library. In 1763, he was made member of the academy of belles-lettres. A. then commenced the arrangement of the materials which he had collected with so much toil; he published in succession, the *Zend-Avesta*, the *Spirit of Oriental Legislation*, his historical and geographical researches in India, and his work on commerce. Afterwards, the revolution disturbed his literary labors. To withdraw himself from its horrors, he broke off all connexion with society, and shut himself up in his chamber, with no friend but his books, no recreation but the recollection of his dear Brahmins and Parsees. The fruits of this retirement were his work, *l'Inde en Rapport avec l'Europe*, and the *Unrevealable Mysteries (Oupnek'hat)*, 2 vols., 4to, 1804; the latter, a translation into Latin of a Persian extract from the Vedas. When the national institute had taken the place of the former academies, A. was elected a member. Exhausted by continued labors, and a very abstemious diet, he died at Paris, Jan. 17, 1805. Immense learning, acquaintance with almost all the European languages, and a restless activity, were united, in A., with the purest love of truth, with sound philosophy, rare disinterestedness and an excellent heart.

ANSELM, archbishop of Canterbury, was born at Aosta, in Piedmont, 1034; became a monk in 1060; some years later, a prior; and, in 1078, abbot of the monastery of Bec, in Normandy, whither the fame of the renowned Lanfranc had attracted him. In 1093, he succeeded Lanfranc as archbishop of Canterbury, in England, which place he held till his death. Intelligence and piety distinguish his writings. He endeavored to discover some conclusive proofs of the existence of God, which he thought he had finally effected in the *ontological method*, as it is

called, of which he is falsely styled the inventor. He inferred the existence of a Supreme and Perfect Being by arguments drawn from the abstract idea of such a Being. Notwithstanding the insufficiency of this proof, which found an early opponent in Gaunilo, a monk at Marmontier, the labors of A. were of great importance. Though the influence of the church, and the fathers of St. Augustin in particular, is obvious, he deserves the praise of having developed the principles of his system of philosophical religion in a decidedly logical form, with acuteness and energy, and of having laid, at the same time, the foundation of the scholastic philosophy. He died in 1099, and will be remembered by his writings, *De Veritate*, *De Libertate Arbitrii*, by his *Monologium* and *Prologium*; in the latter of which his argument in proof of the existence of a Supreme Being is set forth.

ANSGAR, or ANSHAR; called the *apostle of the North*, because he introduced Christianity into Denmark and Sweden. Born in 800, in Picardy, and educated in the monastery of Corvey, he became, in 813, a Benedictine. At the instigation of the emperor, Louis le Débonnaire, he went to Denmark in the suite of some baptized Danish princes, in 826, and, after many disappointments and persecutions, converted the king, and the greater part of the nation, in 830. After his return, 831, he founded a metropolitan church at Hamburg, and became first archbishop in that place. In 847, he transferred his residence to Bremen. At this time, he undertook a new mission into Denmark, in order to convert king Eric I, and went, with recommendations from him, to Sweden, where he baptized many converts, with the permission of king Olaus. He also baptized the successor of Eric, in 858. He died 865, with the reputation of having undertaken, if not the first, the most successful attempts for the propagation of Christianity in the North. His prudence, the purity and warmth of his religious zeal, and the integrity of his life, are equally praised by all his contemporaries. The Catholic church has placed him among the saints.

ANSON, George, lord, whose name shines in the annals of English navigation, was born in 1697, at Shugborough manor, in Staffordshire, and entered early into the navy. In 1716, he served, as second lieutenant, under sir John Norris, in the Baltic, and in 1717 and 1718, under sir George Byng, against the Spaniards. In his 27th year, he was raised to the rank

of post-captain, and was, for a long time, on the South Carolina station. When, in 1739, the ministry considered a rupture with Spain as unavoidable, he was made commander of a fleet in the South sea, directed against the trade and the colonies of that nation. The expedition consisted of 5 men-of-war, and 3 smaller vessels, which carried 1400 men. A. left England, with this squadron, Sept. 18, 1740, and was attacked, on leaving the straits of le Maire, by terrible storms, which prevented him from doubling cape Horn for 3 months. Separated from the rest of his squadron, he reached the island of Juan Fernandez, where 3 of his vessels rejoined him in a very miserable condition. After his men had rested, he proceeded to the coast of Peru, without waiting for the missing ships, made several prizes, and captured and burnt the city of Païta. After a fruitless attempt to intercept the annual Manilla galleon, he found himself obliged to burn, not only a great part of his booty, but all except one of his vessels, in order to equip that one, the Centurion, with which he made his retreat to Tinian, one of the Ladrões. Here the Centurion was blown out to sea while the commander was on shore. Upon this, much exertion was made to enlarge and fit out a small vessel, found in the island. The return of his ship relieved him from this difficulty, and, after some weeks of rest, he sailed for Macao, where he formed a bold plan for taking the galleon of Acapulco. For this purpose, he spread the report of his having returned to Europe, but, in fact, directed his course to the Philippines, and cruised near the promontory Spiritu Santo. After a month, the expected galleon appeared, which, trusting to its superiority, commenced the fight. But the valor of the English prevailed, and the galleon, worth £400,000, was taken; the booty gained on the former occasion amounted to more than £600,000. With these acquisitions, A. returned to Macao, sold his prize, and maintained with energy the rights of his flag against the Chinese government at Canton. From this place he sailed for England, and, passing undiscovered through the French fleet in the channel, arrived at Spithead, June 15, 1744, after an absence of 3 years and 9 months. This perilous voyage through unexplored seas added much to geography and navigation. His adventures and discoveries are described in Anson's Voyage. A few days after his return, he was made rear-admiral of the blue, and, not

long after, rear-admiral of the white; he was also elected member of parliament. His victory over the French admiral Jonquière, near cape Finisterre, in 1747, raised him to the peerage, with the title of lord Anson, baron of Soberton. Two of the prizes taken on this occasion were called *l'Invincible* and *la Gloire*, which induced the captain of the former to say, on giving up his sword, "*Monsieur, vous avez vaincu l'Invincible, et la Gloire vous suit.*" 4 years afterwards, he was made first lord of the admiralty. In 1758, he commanded the fleet before Brest, protected the landing of the English at St. Malo, Cherbourg, &c., and received the repulsed troops into his vessels. Finally, in 1761, he was appointed to convey the queen of George III to England. He died in 1762, on his estate at Moor-park, leaving no children.

ANSPACH (Onolzbach); formerly the residence of the margraves of Anspach-Baireuth, now the chief town of the Bavarian district of the Rezat; contains 1016 houses, and 16,370 inhabitants, with a fine palace, a royal school, and some manufactures. In the garden of the palace stands the monument of the poet Uz, who was born at A., and died there in 1796. The last margrave ceded the marquise or principality of A. to Frederic William II, king of Prussia, Dec. 2, 1791. His wife was lady Craven. (q. v.) Frederic William III ceded A., in 1806, to France, and she exchanged it with Bavaria for Juliers and Berg. Prussia gave up, also, Baireuth, in 1807, at the peace of Tilsit, to France, and France transferred it to Bavaria. In the time when Anspach and Baireuth were under the French government, Bernadotte, the present king of Sweden, was their governor, and gained the love of all the inhabitants, by his strict justice, even where French soldiers were concerned, and by his endeavors to alleviate, as much as possible, the evils of war. His conduct presented a striking contrast to that of several other French governors of conquered provinces under Napoleon. (See *Charles XIV.*)

ANSTEE, Christopher, an ingenious poet of the 18th century, was the son of the reverend Christopher Anstey, D. D., and born in 1724. He was educated at Bury St. Edmund's, whence he removed to Eton. In 1754, he succeeded to his patrimonial property, when he married Ann, daughter of Felix Calvert, esq., of Albury-hall, Herts, by whom he had 13 children, 8 of whom survived him. He then resided, for the most part, at Bath.

He had long cultivated poetry, but most of his early productions were Latin translations of English popular poems, one of which was Gray's *Elegy*. It was not until 1766, that his humorous production; the *New Bath Guide*, was published, which at once became highly popular for its pointed and original humor, and, as usual, led to numerous imitations. He also wrote several other works. He died in 1805, in his 81st year.

ANT (*formica*, L.), a genus of hymenopterous or membranous-winged insects, belongs to Cuvier's second section, *aculeata*; family, *heterogyna*.—This race of insects, celebrated from all antiquity for singular instincts, industry and foresight, would require a volume for the enumeration of all the curious and interesting circumstances observed by various naturalists, who have devoted themselves to their investigation. But as such amplitude and minuteness of detail are inconsistent with the present work, our remarks will be confined to essentials. To the works of Swammerdam, Réaumur, and, most especially, Huber, we must refer those who desire to be particularly informed on the subject: the last-named author has, in his work on ants, rivalled his father's justly-celebrated treatise on bees, and bestowed upon lovers of natural science a gift as precious as it is rare.—Most of the species live in large companies or societies, composed of three sorts of individuals,—males, females and neuters. The males and females have long wings, not so much veined as in other insects of the same section, which are very temporary; the neuters, which are actually females with imperfect ovaries, are destitute of wings. The males and females are found in the vicinity of their habitation but a short time, as they speedily mount into the air, where their sexual connexion is consummated, after which the males perish, and return no more to their former dwelling; while the impregnated females, alighting on the ground, detach their wings by the aid of their feet, and commence the great work of their existence,—the deposition of their eggs for the continuance of the species. Some of the females, which couple in the vicinity of the ant-hill, are frequently seized upon by the numerous neuters, carried back into the galleries of their dwelling, and detained until they destroy their wings, and force them to lay their eggs; after which they cease to be of consequence, and are driven forth. The males are much smaller than the females, and have larger eyes,

though the head and mandibles are proportionally smaller. The neuters have neither wings nor smooth eyes; their heads are large, their jaws strong, and their corselet compressed, or even knotty; their feet proportional. These neuters perform all the labors of the ant-hill; they excavate the galleries, procure food, and wait upon the larves until they are fit to leave their cells, appearing always industrious and solicitous. They are apparently endowed with the power of communicating to each other the result of their searches after food, and thus obtain the coöperation of several, where the strength of an individual would be insufficient. They feed the larves, or young ants, which are destitute of organs of motion, with materials which they disgorge from their own mouths, and which seem to have undergone some preparation in their stomachs. In fine weather, they carefully convey them to the surface for the benefit of the sun's heat, and as attentively carry them to a place of safety, either when bad weather is threatened, or the ant-hill is disturbed. In like manner they watch over the safety of the nymphs or larves about to acquire their perfect growth, some of which are in cocoons, and some uncovered. When the time arrives at which the former are to undergo their final change, they tear open the cocoons to permit them to escape. If the weather be unfavorable, they detain those which have acquired their wings till a suitable opportunity offers, and then aid them to gain their liberty by the easiest route.—There is a very considerable variety in the ant-hills, or nests, according to the peculiar nature or instinct of the species. The greater number make their nests in the earth, under buildings, &c., where they excavate extensive galleries for the reception of their young; and of these the dwelling is almost entirely concealed. But others build their hills or nests of various substances, and form cones or domes of considerable size above ground. Some, again, prefer the trunks of old trees, in which they form the most singular labyrinths, leading to the cells where their progeny are to be reared. These nests, whether above or under ground, have commonly a strong and sour odor, which arises from the acid secreted by some of them from glands placed near the anus. This acid, once supposed to be of peculiar character, but now considered as acetic acid, is known by the name of *formic*, or *acid of ants*.—One among the most curious circumstan-

ces connected with the general history of ants, is the exception to the general rule relative to the occupants of nests being individuals of the same species. Huber first observed, and his observations have since been amply confirmed, that the reddish, Amazon or sanguineous ant resorts to violence to obtain working ants, of other species, for their own use, thus actually making slaves of those they carry off to their nests. The neuters of these Amazons, regularly about the same hour, when the heat of the day begins to diminish, and for several successive days, advance in a dense mass towards the ant-hill they design to plunder; there, in spite of all the opposition made, they enter, seize on the larves and nymphs peculiar to this species, and carry them off to their own nest, where other neuters of the same species, but of full growth, take care of these kidnapped individuals, as well as of the offspring of their vanquishers. Another exceedingly curious fact, in relation to ants, is the subserviency of the little insects, called *aphides* or *vine-fretters*, to their necessities. The aphides are remarkable for ejecting from little prominences on the posterior part of their bodies, a small drop of limpid and sweet-tasted fluid. Not only do the ants profit by this when it is found on the leaves, but they know how to obtain it from the aphides at will. An ant approaches the aphid, and begins very gently to touch it with his antenna over the sides and back, as if caressing it. In a very short time, the aphid raises its hinder limbs slightly, and from the orifices on its back a small, clear drop exudes, which is greedily drank up by the ant, who repeats the same treatment to several, until his hunger is entirely sated. These aphides have been appropriately called the *cous* of the ants, which, in fact, seem to regard them as their peculiar property, not only taking great care of them, but fighting for their possession. So fully sensible are they of their great value, that they carry the eggs of the aphides into their nests, where they take care of them till they are hatched. Some species of ants keep their aphides altogether under ground, or at least during bad seasons, where they feed on the roots of plants; others build with clay small galleries from the ant-hills up trees, and even to the branches, upon which the aphides abound.—Male and female ants survive, at most, till autumn, or to the commencement of cool weather, though a very large proportion of them cease to exist long previous to that time.

The neuters pass the winter in a state of torpor, and of course require no food. This well-ascertained fact proves that their remarkable foresight has no other object than the continuance of the species by perfecting and securing their habitations. The only time when they require food is during the season of activity, when they have a vast number of young to feed.—It would be well for mankind if ants derived all their nourishment from the aphides, or from the dead bodies of other insects, small birds, &c. Unfortunately, they are but too celebrated, in most countries, for their destructive operations among the grain, in gardens, pantries and conservatories. Their larvae and nymphs are, in some parts of the world, collected for the purpose of feeding pheasants and young turkeys, but we know of no other economic use, to which they are particularly applicable. The bodies of small animals, skinned, and secured near an ant-hill, are soon converted into very neatly-cleaned skeletons; but care must be taken to prevent them from being carried off by larger animals, or from remaining too long exposed to the weather after having been stripped by the ants of their flesh.

ANT-EATER (*myrmecophaga*, L.); a genus of mammiferous quadrupeds, of the order *edentata*, C.—This peculiar race of animals is only found in the southern part of the American continent, where they aid in diminishing the numbers of immense hordes of ants, which desolate the country in the vicinity of their dwellings. Every particular of their construction renders the ant-eaters especially fit for the duty they perform. The whole head is remarkably elongated, and destitute of teeth, but furnished with a very narrow, long, smooth tongue, by the aid of which they gather their prey. Their limbs, especially the anterior, are very robust, and furnished with long, compressed, acute nails, admirably adapted for breaking into the hillocks containing their appropriate food. The most remarkable of the species, whose habits are best known, is the *myrmecophaga jubata*, or great ant-eater, sometimes called *ant-bear*.—The great ant-eater is 4 or 5 feet long, exclusive of the tail, which is about 3. The head and anterior extremities are covered with a brownish hair, which is mixed with white on the trunk and tail, though the predominant color is brown. On each side of the shoulders there is a black band between two white ones, which ascend towards the middle of the back,

where the hair is elongated to a sort of mane, which increases in length and thickness towards the base of the tail. The hair is flat at the end, and round for the rest of its length, somewhat resembling the hair of the deer. The fore feet have 5 digits, with very strong claws; the hind feet, 4: there are 2 pectoral mamæ.—The great ant-eater leads a harmless and solitary life, but is not so incapable of self-defence as might be inferred from its exceedingly small mouth and entire want of teeth. When irritated, it erects its long, brush-like tail, and waves it in the air, and, when attacked by a dog or other small quadruped, either seizes and compresses it to suffocation between its powerful fore legs, or, sitting on its hinder limbs, strikes destructive blows with its strong, sharp claws. To man, however, they offer very little resistance, being easily killed by blows on the head. In feeding, the great ant-eater either thrusts his long, narrow tongue, covered with a glutinous fluid, into the ant-heap, whence he withdraws it covered with the insects, or else, having partially demolished the hill by means of his fore limbs, he, with wonderful celerity, transfers the alarmed inhabitants to his stomach, by repeated extensions and retractions of his tongue, which operation the animal is stated, by observers, to effect twice in a second. The savages and Negro slaves hunt the great ant-eater for the sake of its skin and flesh, which the Negroes esteem highly. This species may be domesticated, and then feeds upon small pieces of bread or meat, and various insects.—Two other species have been long known, both of which have naked, scaly and prehensile tails. These are the three-toed ant-eater, *myrmecophaga tamandua*, C.; *tridactyla*, L.; and the two-toed ant-eater, *myrmecophaga didactyla*, L. These, as might be inferred from their size (the first 25 inches, with a tail 16 inches long; the second 7 or 8 inches long, with a tail of 8 or 9 inches), and the prehensile character of their tails, are adapted for climbing trees and preying upon ants which make their nests in such situations. The two-toed ant-eater brings forth but a single young one at a birth, on a bed of leaves prepared in a hollow tree. Kru-senstern, in the narrative of his voyage, describes a species which grunted somewhat like a hog, had a tail shorter than the body, was of a white color, with 12 blackish bands. The name of *myrmecophaga annulatus* has been given to this by Desmarest.—All the ant-eaters are slow

in their movements, and the two smaller species are especially helpless when on the ground, though they defend themselves bravely when attacked. In order to use their defensive fore claws to greater advantage, they sit upon their hinder limbs like the bear, and strike with great force.

ANTEUS; the giant son of Neptune and of the Earth, who lived in a cave in Lybia, and forced every stranger who arrived to fight with him. Whenever he was thrown to the earth, his strength was restored by his mother. By this means, he succeeded in killing his antagonists, and planted their skulls round his dwelling. But Hercules, whom he challenged to combat, perceiving the secret of his strength, grasped him in his arms, and stifled him suspended in the air.

ANTAGONIST MUSCLES; those muscles which have opposite functions, as flexors and extensors, abductors and adductors.

ANTANACLASIS (Greek; from *ἀντανάλλω*, I drive back); the repetition of a word in a different meaning, or as a different part of speech, which attracts attention, and gives expressiveness to the phrase; e. g., "Let the dead bury their dead;" or, "Live while you live." The returning to a subject after a long parenthesis is also called *antanaclasis*.

ANTAR, or **ANDAR**; a famous Arabian prince in the middle of the 6th century, and one of the 7 poets, whose successful verses, embroidered with gold upon silk, were hung up at the door of the Caaba. (See *Arabian Literature*, and *Moallakut*.) He describes in his *Moallaka* his warlike deeds and his love for Abla. The most complete edition is that of Menil (Leyden, 1816, 4to.) Hartmann's German translation, from the English translation by sir William Jones, was published in the *Hellstrahlenden Plejaden, am Arab. poet. Himmel*. (Münster, 1802.) In the Arabian romance *Antar*, the author, Asmai, a renowned grammarian and theologian at the court of Haroun Al Raschid, in the beginning of the 9th century, who first collected the old Arabian traditions, has added to the name, and the heroic adventures of Antar, the other most famous chivalrous deeds of the Arabians. Sir W. Jones first made us well acquainted with this remarkable and attractive romance; after him, v. Hammer, in his *Fundgruben des Orients* (1812,) described the complete copy of it in the imperial library at Vienna; besides which, there are 6 others in Europe. This romance gives the most complete idea of the manners and life, of the way of thinking,

of the opinions and the superstitions, of the early Arabians, before the time of the prophet, and the fidelity of the picture is even now to be recognised in many features of the modern Bedouins. It is written in the purest Arabic, and ranked among the classics of Arabian literature. It is so attracting, that critics prefer it to the Arabian Nights. Hamilton, secretary of the British embassy in Constantinople, has translated it into English (*Antar*, a Bedouen Romance, translated from the Arabic, by Terrik Hamilton; London, 1819, 4 vols.) A French translation has since appeared at Paris.

ANTARCTIC CIRCLE (of *ἀντι*, opposite, and *ἀρκτος*, a bear) is one of the smaller circles of the sphere, parallel to the equator, and distant from the south pole 23° 30'.—*Antarctic pole*, being opposite to the arctic pole, denotes the opposite end of the earth's axis, or the south pole. Till lately, no land was known to exist beyond the 60th degree of south latitude. Cook (q. v.) reached this degree, but masses of ice and storms drove him back. In 1820, a whaler discovered an island south of cape Horn, in lat. 61°, about 200 miles in length, which he called *New Shetland*. Since this time, English and Russian ships have penetrated still farther towards the south pole. (See *Southern Polar Islands*.) Probably not the cold, but the great number of islands, with shallow currents between them, and the late melting of the ice on the sand-banks, in narrow gulfs, would form the chief obstruction to ever reaching the south pole. As, in this region of cold, the whales have been pursued but a few years, they are very numerous, and chance will, no doubt, lead some seaman, while engaged in the whale fishery in the antarctic region, to new discoveries.

ANTEDILUVIAN; any thing, or being, which existed before the deluge. (q. v. See also *Fossil Remains*.)

ANTELOPE; a genus of mammiferous, ruminant quadrupeds, intermediate to the deer and goat, first established by the Russian naturalist Pallas, and subsequently divided into numerous sections by Blainville, founded on characters furnished by the shape and curvature of the horns, &c. The characteristics of the genus are the following:—horns persistent, hollow, resting on a solid, bony nucleus of the os frontis; straight, spiral, lyre-shaped, annulated at base; marked with transverse bands, a salient spiral line, or bifurcated in different species; gall bladder uniformly present, which is not

possessed by deer. In other characters, the antelopes bear a very marked resemblance to the deer, except that some species of antelope have tufts of hair pendent from the carpus.—Numerous as are the species of antelope, but two are found in Europe, and only one in America—the chamois and saiga in the former, the prong-horn (q. v.) in the latter. All the rest are natives of the hottest parts of Asia and Africa. They are generally remarkable for the symmetry and delicacy of their forms, and surpassing celerity of movement. Their eyes are proverbial for largeness and lustre; their legs are slender and graceful, longer before than behind, whence they can run to greatest advantage on ascending ground. Possessing less of muscular vigor and compactness of frame than the deer, they do not advance by successive bounds, but by a regular race, the swiftness of which, in some species, almost exceeds imagination. They are, generally, yellow on the back, and white beneath, having a brown band separating these colors at the flank. The ears are long, straight, pointed, and somewhat dilated in the middle. Great varieties of appearance and habits are exhibited in the different species: some are monogamous and solitary; some prefer arid deserts, where but a scanty subsistence is to be obtained, of aromatic, acrid, or salt-tasted plants; others delight exclusively in the fresh herbage growing in the vicinity of rivers and marshes. One species, the chamois, delights to browse on the almost inaccessible summits of the icy Alps; almost all the others prefer the sultry plains of the torrid zone. In form, some of the species resemble a slender deer or goat; while a few others approximate considerably to the appearance of the ox. With a solitary exception, that of the gnu, they are gentle, timid, harmless, and easily tamed. The gnu is fierce and warlike, exhibiting through life a vicious and indomitable disposition. Many of the species are gregarious, living in herds or families, consisting of twenty or thirty individuals. They feed exclusively on vegetable food, and their flesh is regarded as a luxury when obtained in the proper season. Against their numerous enemies, they have no resort but in flight, and, swift as this is, it cannot save them from the unremitted pursuit of the jackal, or the insidious prowling of the tiger. Lions, leopards, ounces and other carnivorous tyrants lie in ambush for them at their drinking-places; and man, aided by dogs and falcons, contributes his share

to their destruction. In the great system of balances established by nature, they seem peculiarly adapted for their situation, which is generally in countries where a luxuriant vegetation requires constant efforts to repress its superabundance; while they, at the same time, furnish large supplies of food to numerous carnivorous animals, as well as to the human race. The following are the names of the subgenera proposed by Blainville, &c., and now generally adopted by naturalists:—1. *Antilope*. 2. *Gazella*. 3. *Cervicapra*. 4. *Alcelaphus*. 5. *Tragelaphus*. 6. *Oreas*, Desm. 7. *Boselaphus*. 8. *Oryx*. 9. *Egocerus*, Desm. 10. *Bupicapra*. 11. *Antilocapra*.

ANTENATI (a Latin word, signifying *born before*); the subjects of Scotland born before the accession of James I. to the English crown are thus called; those who were born after the accession being denominated *postnati*. The A. were considered aliens in England; so, too, persons born in England before the separation of the present U. States from the mother country have been held to be aliens in the U. States.

ANTENNE, in entomology; slender bodies, with which nature has furnished the heads of insects, being the same with what are called *horns* or *feelers*.

ANTENOR; a noble Trojan. In Homer, he is represented as a prudent old man. He received Ulysses and Menelaus as guests, during their embassy to Troy, accompanied Priam to the field of battle, to ratify the treaty, and, after the single combat between Ajax and Hector, proposed, though in vain, the restoration of Helen. This was probably the foundation of the story that he was friendly to the Greeks, and treacherous to the Trojans. He is said to have delivered the Palladium to the Greeks, to have given the signal for their entrance by a light from the wall, and to have himself opened the famous horse. His house remained safe in the sack of the city, which may, however, be explained by the former hospitality of A. to Menelaus. He himself escaped in the same manner as Æneas, and became, like him, the founder of a new dynasty. Traditions differ concerning it. The most common is the story told by Virgil, that he removed with his sons to Thrace, and thence, with the Heneti, to Italy, where he founded Patavium, now Padua.

ANTEROS, in mythology; the god of mutual love. The later mythology says, that, as soon as Eros, the god of love, was grown up, his mother bore Anteros to

Mars, a fiction which indicates that love must be mutual. According to some modern interpreters, however, Anteros is the enemy of love, or the god of antipathy.

ANTHEM. (See *Antiphony*.)

ANTHING, Frederic; known by his biography of the famous field-marshal Suwaroff, whose companion in arms he had been. He was born in Gotha, travelled through Europe, and went to Petersburg, where he lived by taking *silhouettes* (profiles cut in paper), which just then had come into fashion. The likenesses of this sort, which he took of the imperial family, made him known. He was for a long time on the most intimate terms with Suwaroff, till this general fell into disgrace with the emperor Paul. A. died, in 1805, in Petersburg.

ANTHOLOGY (*Greek*; a collection of flowers) is the name given to several collections of short poems, mostly epigrams, which have come down from antiquity. The first compiler of this kind was Meleager, a Syrian, who, about 60 B. C., made a collection of his own poems, and those of others. In later times, the same was done by Philip of Thessalonica, probably in the time of Trajan; Diogenianus of Heraclea, Strato of Sardis, both under Adrian; and Agathias, in the 6th century. But all those ancient collections are lost. We now possess two of a later period, the one by Constantine Cephalas, in the 10th century, who, in his *Florilegium*, made much use of the earlier ones, particularly that of Agathias; the other by Maximus Planudes, in the 14th century, a monk of Constantinople, who, however, by his tasteless extracts from the Anthology of Cephalas, rather injured than improved the existing stock. The latter is the most common. It contains 7 books, which, with the exception of the 5th and 7th, are subdivided in alphabetical order. It agrees only in part with the Anthology of Cephalas, which has been preserved in a single copy. This copy was carried from Heidelberg to Rome, and thence to Paris, but has been again restored to the Heidelberg library. The last and most complete edition of this original text is that of Jacobs, Leips. 1813, 4 vols. The editions of Brunck (*Analecta*), Strasb. 1772, 3 vols., which appeared accompanied with the commentary of Jacobs, Leips. 1794, 13 vols., are compiled from the Anthology of Planudes and Constantinus. In Germany, the Greek Anthology has been often translated, and the rich poetical vigor, the delicacy of feeling, the sportive gayety, the noble and elevated

thoughts, displayed in these little pieces, have secured for them a deserved admiration. A similar Latin Anthology has been collected by Joseph Scaliger, Lindenbruch, and several others; the best edition is that of Peter Burmann, junior, Amsterdam, 1759—73, 2 vols. 4to. Oriental literature, particularly the Arabian, is very rich in Anthologies. The Arabian name for them is *Hamasah*.

ANTHONY, St., the Great; first institutor of monastic life; born A. D. 251, at Coma, in Heraclea, a town of Upper Egypt; went into retirement from a propensity to devotion, A. D. 285, when he had never known the pleasures of knowledge, and, probably, never learned to read. A. D. 305, several hermits united with him, and formed the first community of monks. A. D. 311, he went to Alexandria, to seek the honor of martyrdom, amid the persecutions then raging against the Christians; but, as his life was spared, he returned to the cottages of his monks. He afterwards left this institution to the care of his scholar Pacomius (see *Monastery*), and retired with two friends to a more remote desert, where he died, A. D. 356. That he used no garments but a shirt made of hair and a sheep-skin, and never washed his body, is more credible than the strange stories of his contests with devils, and the wonders which he has himself made known, as related in his life by St. Athanasius. All his conduct indicates a fervent and melancholy imagination. Seven letters, and some other ascetic writings, were formerly attributed to him, but it is not probable that he was their author. There is, also, but little proof that he instituted laws for the monks; and the opinion is wholly unfounded that he established a particular order. Yet the monks of the heretical churches in the East, e. g., the Maronites, Armenians, Jacobites, Copts and Abyssinians, pretend to belong to the order of St. A., but they only follow the rules of St. Basil. As a saint of the Catholic church, A. is much esteemed. Prayer for his intercession was intended, particularly, to preserve from the St. Anthony's fire, so called from him,—a violent and terrible disease of the middle ages, which dried up and blackened every limb which it attacked, as if it were burnt. Gaston, a rich nobleman in Dauphiny, whose son had been cured (as he supposed) by the pretended bones of St. A., at St. Didier-la-Mothe, in token of his gratitude, established, A. D. 1095, the hospitable fraternity of St. Anthony, for the care of the sick, and the assistance of pil-

grims, of which he was the first chief. This order received, from the churches assembled at Clermont, A. D. 1096, the papal confirmation; took the monastic vows, A. D. 1218; and were declared by Boniface VIII, A. D. 1298, a fraternity of regular canons, according to the rules of St. Augustin; their chief was to be termed *abbot*, have his seat at St.-Didier-la-Mothe, and be the general of all the houses of that order. The priors of these houses called themselves *comithure*, afterwards *preceptors*, and were subject to the abbot. The dress of these Anthonians was black, marked on the breast with a blue cross, nearly in the form of a T. They afterwards altered the rules of their institution, and devoted themselves to a silent, contemplative life of devotion. This society became very rich by reason of the many pilgrimages to the grave of St. A., and the presents which they received. Their order now became widely extended. Even in the 18th century, they numbered 30 convents, mostly in France; but not one of them has continued to the 19th.

ANTHONY, St.; a cape on the coast of Buenos Ayres. It forms the southern point of the entrance into the La Plata.—There are 3 other capes of the same name, one of which forms the western extremity of the island of Cuba; another on the coast of Todos Santos in Brazil; another on the coast of the straits of Magellan.

ANTHONY, St., falls of, on the Mississippi; lon. 93° 40' W.; lat. 44° 15' N. The river is 627 yards broad above the falls, and immediately below it is contracted within a channel of 209 yards. An island divides the falls into 2 parts. The perpendicular height of the cataract is 16½ feet, besides 58 feet more of a rapid below; so that, when viewed from a distance, it appears to be much higher than it really is. When the river is high, the appearance of these falls is very sublime, as the spray then formed reflects all the colors of the rainbow. The surrounding country is extremely beautiful, exhibiting many gentle ascents, with eminences covered with the finest verdure. The portage around the falls is 260 rods long.

ANTHONY, St., island of; the most northern of the cape Verd islands. Topazes are found in one of its mountains, and it is said to contain mines of gold and silver. The inhabitants, chiefly Negroes, are about 580 in number.

ANTHONY of Padua, St.; born August 15, A. D. 1195, of a noble family in Lisbon; one of the most renowned disciples of St. Francis of Assisi, and a powerful

advocate of the Franciscan order, which he entered A. D. 1220; was shipwrecked on the coast of Italy, in a voyage to Africa, which he had undertaken with a view of becoming a martyr to the Christian faith, and preached, with great applause, at Montpellier, Toulouse, Bologna and Padua, where he died, June 13, A. D. 1231. His Legends are full of prodigies; but all agree in extolling his talents as a preacher. According to tradition, the very fishes were affected by his eloquence. The Catholic church, particularly in Portugal and Italy, honored him as one of its most eminent saints, among whom pope Gregory IX assigned him a place, A. D. 1232. At Padua, a church, containing his sepulchre, is consecrated to him, which is a master-piece of architecture.

ANTHRACITE (from *άνθραξ*, coal) is the name of one of the most valuable kinds of coal used in the arts and domestic economy. Its mineralogical character is as follows: color, grayish-black, or iron-black; lustre, imperfectly metallic; opaque; specific gravity, from 1.4 to 1.6; fracture, conchoidal. Some varieties abound in fissures, in consequence of which they possess an irregular columnar structure, and a lower degree of lustre; while others are highly compact, of a black color, with a shining lustre, and occasionally highly tarnished with iridescent colors. Anthracite consists wholly of carbon, mixed with a slight and variable proportion of oxyde of iron, silice and alumine. It is inflammable with some difficulty, and burns without smell or smoke, leaving a more or less earthy residue. It is less widely distributed than the bituminous coal, and belongs exclusively to transition rocks. It has been found in several European countries, where, owing to its limited extent and other causes, its use appears to be but little known. In the U. States, on the contrary, it occurs in the greatest abundance, and, within the last 10 years, has acquired a high degree of importance. Its difficult combustibility was, for a time, an obstacle to its introduction; this, however, was obviated by the invention of peculiar furnaces and grates. It is now very largely used in all the maritime parts of the U. States, not only for manufacturing purposes, in which its utility is immense, but in the warming of apartments, both private and public; and its cheapness, the intensity and equability of heat it produces, together with its perfect safety, and freedom from all disagreeable smoke and smell, give it a decided preference over every other species of fuel.

In Pennsylvania, the anthracite coal formation is known to cover a tract of country many miles in width, extending across the two entire counties of Luzerne and Schuylkill. Mauch Chunk, upon the Lehigh, Pottsville, at the head of the Schuylkill canal, and Wilkesbarre, upon the Susquehanna, have afforded the chief supply of coal from this region, as well as the greatest proportion consumed in the U. States. At Mauch Chunk, 800 men were employed in digging coal, in 1825, in which year 750,000 bushels were sent to Philadelphia. The anthracite, throughout this region, is explored with very little labor, being situated in hills from 300 to 600 feet above the level of neighboring rivers and canals, and existing in nearly horizontal beds, from 15 to 40 feet in thickness, covered only by a few feet of gravelly loam. At Portsmouth, in Rhode Island, an extensive bed of this coal has been worked, with some interruption, for 20 years; and, more recently, a mine of anthracite has been opened at Worcester, in Massachusetts, at the head of the Blackstone canal.

ANTHROPOLITES; petrifications of human bodies or parts of the body. (See *Petrifications*.) Those of animals are called *zoolites*.

ANTHROPOLOGY (from *ἄνθρωπος*, man, and *λόγος*, a discourse) signifies the science which treats of human nature, either in a physical or an intellectual point of view. It is frequently used to denote the science of anatomy. In theology, it denotes a way of speaking of God after the manner of men, by attributing to him human passions and affections. (See *Philosophy*.)

ANTHROPOMORPHITES (from *ἄνθρωπος*, man, and *μορφή*, form); called also *Audi-ans*; the adherents of Audius, or Audaus, a teacher in Syria, who was banished to Scythia, introduced Christianity among the Goths, and died about 370 after Christ. They were excommunicated by the orthodox church, rather on account of their persevering in the old way of celebrating Easter, at the same time with the Jewish Passover, their deviation from the usual penances, and their zeal against unworthy priests, than on account of their representation of God in a human shape. Towards the close of the 4th century, they still existed, as schismatics of severe morals, in small bodies in Syria; in the 5th century, they were extinct.—The Italian divines at Vicenza, about the year 938, who were called *Anthropomorphists* on account of similar representations of God, formed no sect.

ANTHROPOPHAGI (from *ἄνθρωπος*, man, and *φάγω*, I eat); man-eaters, cannibals.

The practice of eating human flesh, unnatural as it may seem to us, is found to prevail among some nations. In some cases, hunger, in others, revenge, in others, superstition, is the motive; at least, it is reported that the Mexicans used to eat the flesh of the victims whom they had sacrificed to their idols. In some instances, a horrid desire for human flesh appears to have been occasioned by disease, like other perversions of the appetite. Thus a cowherd, named Goldschmidt, who had committed a murder, and, in order to prevent discovery, had cut the body in pieces, is said to have felt a craving for human flesh arise within him, and, after devouring the body of the murdered man, to have killed an infant expressly for the purpose of gratifying his unnatural longing. (See Gruner's *Almanac for Physicians* (*Almanach für Aerzte*), 1782, page 312.) Boethius reports, in his history of Scotland, an instance, in which this disease seized a whole family. A robber, his wife and children, were burnt, because they had killed and eaten several persons whom they had enticed into their dwelling. Only one daughter, who was very young, was left alive; but scarcely had she reached her 12th year, when she was executed for the same crime. That there are nations who eat the flesh of enemies slain in battle, e. g., the New Zealanders, is well known; but there are none who make human flesh their usual food, except, perhaps, the Battos in Sumatra, according to the report of Anderson (London, 1826). The cruelty of the first conquerors of America, the Spaniards, inflamed the gentle natives to a barbarous revenge; and they were calumniated as cannibals, to afford a better pretext for their destruction. Under this pretence, the Caribs were extirpated. Modern navigators have not confirmed those sweeping accusations of barbarism and cannibalism; and even where they have met with nations who ate human flesh (that of slaughtered enemies), they have found them mild and kind-hearted people. In Germany, during the reign of Joseph II, it was pretended that gipsies had been known to murder travellers, cut them in pieces, salt and eat them! Cannibalism prevailed among the savage Scythians and Sarmatians, also among the ancient inhabitants of Canaan.

ANTIBACCHIUS. (See *Rhythmus*.)

ANTIBES; an old town of Provence, in the department of the Var, on the Mediterranean, with a commodious harbor and a strong citadel. It was founded

by the Massilians, 340 B. C., and named *Antipolis*. A. now contains 500 houses, with 5270 inhabitants. It is an important barrier fortress on the side of Italy, and was, in 1747, besieged without effect by the Austrians and English. A. is remarkable for being the only place where the French soldiers refused to join Napoleon on his landing from Elba, in 1815. Lon. $7^{\circ} 11' E.$; lat. $43^{\circ} 35' N.$

ANTICAGLIA. (See *Antique*.)

ANTICHRIST. In the last centuries before Christ, the Jews connected with their idea of the Messiah the notion of an Anti-Messiah, or an enemy to the attempts of the Messiah to promote the good of their nation, who would cause great sufferings before the advent of the latter. The books of the New Testament mention the Antichrist as one or several false prophets, who would pretend to be the true Christ, and would deceive the world. In the Apocalypse alone, he is represented as a powerful ruler, opposed to Christianity. The Christians, in the first centuries, retained the idea of such a powerful enemy of the church, whose appearance, announced by their own persecutions, would precede the reappearance of Christ, which was then commonly expected. With the belief of the millennium, which was to succeed the vexations of the church by the Antichrist, the idea of such a being continued under various forms, and heightened by the most lively descriptions on the part of the Christian fathers, until the year 1000 had elapsed without the fulfilment of these prophecies, and the millennial enthusiasm itself was cooled. The interpretation of the Apocalypse constantly occasioned new calculations on the appearance of the Antichrist. In the middle ages, the opponents of the Roman hierarchy eagerly applied this character to the pope, in whom not only the Waldenses, Wickliffites and Hussites, but even Luther and his friends, recognised the true Antichrist, as having placed himself against and above Christ. On the other hand, the Catholics bestowed this title on Luther and other reformers. Thus the idea of the Antichrist, as a dangerous enemy to the true church, remained under a variety of forms, without ever regaining universal acknowledgment. The fathers have generally agreed, that the Antichrist will appear, at the approach of the last day, in a bodily shape; but as to his origin, and time and place of appearing, their opinions differ. Some believe that he will be a mere man—"the man of sin, the son of perdition," spoken of by St.

Paul; and others, that he will be an incarnation of the devil. Malvenda, in a large work, consisting of 13 books, has given the most minute account of the birth, childhood, education, character, power, wars, persecutions and death of Antichrist. The church of Rome has never pronounced any decision with regard to the various notions its members have entertained on this subject. Napoleon was styled *Antichrist* by some persons, and several passages of the Apocalypse were referred to him. At present, the great party of fanatics, political and religious, perceive the Antichrist in human reason, or, rather, in the free use of it against the views and pretensions of fanaticism. Among the Jews, too, since the destruction of Jerusalem by Titus, the wonderful prophecy of a contest is preserved, in which an Antichrist, by name *Armillus*, will be vanquished by the true Messiah, after a severe oppression of the Jews.

ANTICYRA; a town of Phocis, in Greece, famous for the hellebore which it produced. This plant was of great service in curing diseases, particularly insanity, and A. was therefore much resorted to by the ancients; hence the expression of Horace, *Naviget Anticyram*.

ANTIGONE, the fruit of the incestuous marriage of *Œdipus* and *Jocasta*, though innocent, bore the curse of her father's house. For her history, see the articles *Eteocles* and *Œdipus*. *Sophocles* has immortalized her in a tragedy.

ANTIGONUS; one of the generals of Alexander, to whom, after his first conquests in Asia, he intrusted the government of Lycia and Phrygia. A. not only defended his provinces with very small forces, but also subdued Lycaonia. When, after the death of Alexander, his generals divided his conquests among themselves, he obtained the Greater Phrygia, Lycia and Pamphylia. *Perdiccas*, who strove to unite all the states of Alexander under his own dominion, and who feared the energy of Antigonus, accused him of disobedience to the commands of the king. A. saw through his intentions, embarked secretly for Europe, and connected himself with *Craterus* and *Antipater*. These three, then, together with *Ptolemy*, declared war against *Perdiccas*. The latter was killed by his own soldiers. *Eumenes*, the general of *Perdiccas*, was still, however, very powerful in Asia. A. continued the war against him alone, got him into his power, and put him to death. Thus, in a short time, he became master

of almost all Asia; for Seleucus, who reigned in Syria, and had endeavored to oppose his usurpations, was likewise overpowered by him, and sought shelter with Ptolemy. A. possessed himself, also, of the greater part of the treasures of Alexander at Ecbatana and Susa, but would not render an account of them to Ptolemy, Cassander and Lysimachus, and even declared war against Cassander, in order to revenge, as he said, the death of Olympias, and to deliver the young Alexander, who lived with his mother, Roxana, at Amphipolis. Disgusted by his ambition, all the generals united themselves against him; and, whilst Cassander attacked Asia Minor, Ptolemy and Seleucus invaded Syria, where they defeated Demetrius, the son of A. Seleucus retook Babylon. As soon as A. was apprized of these events, he returned, and obliged Ptolemy to retreat. Demetrius recovered Babylon from the hands of Seleucus. Antigonus, Ptolemy, Lysimachus and Cassander concluded a treaty of peace, by which they were to retain, till the majority of the young Alexander, who bore the title of *king*, the territories in their possession. But, after the murder of the young king, with his mother, by Cassander, the war was rekindled among the competitors. A. took the royal title, but was obliged to give up his plan of conquering Egypt, as part of his fleet was lost at sea in a storm, and Ptolemy frustrated every attempt at invasion by land. Soon afterwards, young Demetrius drove Cassander from Greece. He applied for aid to Lysimachus, who went with a powerful army to Asia; here Seleucus also joined him. Near Ipsus, in Phrygia, 301 B. C., a battle was fought by the three allies against A. and his son, in which A. fell, aged 84 years.—There are several other persons of the name of Antigonus mentioned in history.—A., king of Judea, son of Aristobulus. He besieged Jerusalem, was taken prisoner by Herod, and sent to Mark Antony, who put him to death, B. C. 36.—A. Gonatas, son of Demetrius Poliorcetes. He was distinguished by his mild and humane disposition. At his father's death, he succeeded him in the kingdom of Macedonia, and all his other European dominions. He died, after a peaceful reign of 34 years, B. C. 243. Demetrius II succeeded him.—Antigonus II, surnamed Doson, king of Macedonia, the son of Antigonus I, succeeded his brother, Demetrius II, B. C. 225, and was soon after chosen commander-in-chief of the Achæ-

an forces by sea and land. A. defeated Cleomenes, king of Sparta, at Sellasia. He was succeeded by his nephew, Philip VI, B. C. 220.

ANTIGUA; an island in the West Indies, one of the Caribbees, 21 miles long, and nearly the same in breadth, upwards of 50 miles in circumference. It contains 59,838 acres of ground, of which 34,000 are appropriated to the growth of sugar and to pasturage; its other principal commodities are cotton, wool, and tobacco. Population, in 1817, 2,102 whites, exclusive of troops; 1,747 free people of color, and 31,452 slaves. Official value of exports, in 1809, £216,000; imports, £198,000. Antigua is divided into 6 parishes, and 11 districts. The name of the capital is *St. John's*. No island in this part of the West Indies can boast of so many excellent harbors. Of these the principal are English harbor and St. John's, both well fortified; and at the former the British government has established a royal navy-yard and arsenal, and conveniences for careening ships of war. Lon. 61° 48' W.; lat. 17° 5' N. Antigua constitutes, along with St. Christopher, Nevis, Montserrat, and those of the Virgin islands which belong to the English, a separate government. The governor, who is styled *captain-general* of the Leeward and Caribbean islands, generally resides at A., and occasionally visits the other islands. Antigua was discovered by Columbus in 1493. The first settlement was made, in 1632, by a few English families. In 1663, Charles II granted it to lord Willoughby. In 1666, a French expedition, uniting with the Caribs, invaded the island, laid waste the settlements, and committed great cruelties. The island was re-settled a few years afterwards, through the enterprise of colonel Codrington, of Barbadoes, who was appointed commander-in-chief of the Leeward islands. In 1706, and during the three succeeding years, Antigua was cursed by the government of a ferocious and unprincipled tyrant, whose varied crimes and tragical end will not soon be forgotten in the West Indies. The administration of governor Park seems to have resembled more closely the barbarous despotism of Nero or Caracalla than the governments of modern times. Ample vengeance was taken by the people, who, driven to madness by oppression, rose in a body, overpowered the regular troops, tore the living body of the oppressor limb from limb, and gave the fragments to beasts of prey. So well was this punishment thought to be deserved, that the British government rati-

fied the act by granting a general pardon to all concerned in it, and shortly afterwards promoted two of the principal actors to public offices. No event of importance has occurred in the recent history of A., which still remains under the British government.

ANTILEGOMENA; a word in Scripture criticism denoting those books the authority of which has been disputed.

ANTILLES; a cluster of islands in the West Indies, extending in the form of a crescent from the coast of Florida to the mouth of the Orinoco, in Colombia. They are distinguished into *Windward* and *Leeward* islands, and into *Greater* and *Less*. The Greater comprehend Cuba, Hayti or St. Domingo, Jamaica and Porto Rico. The Less embrace Antigua, Barbadoes, St. Christopher, Guadaloupe, Martinico, Grenada, Trinidad, St. Thomas, Santa Cruz, Dominica, St. Vincent, Tobago, St. Lucia, &c. (See *West Indies*.)

ANTILOCHUS; son of Nestor, it is said, by Anaxibia or Eurydice; the youngest soldier in the army of the Greeks before Troy; valiant and courageous, beautiful, and of great strength and activity; on this account the most favored, after Patroclus, by Achilles. He was, for this reason, according to Homer, chosen to announce to Achilles the death of Patroclus. He was called from the battle, flew to his friend, reported, with tears, the mournful tidings, and soothingly held the hands of the despairing Achilles. In the games in honor of the dead, he received the third prize in running, the value of which was enhanced by the praises of Achilles. He slew many of the Trojan chiefs in battle, and was once saved from the perils of fight by Neptune himself. He finally fell in the defence of his gray-haired father, who, when hard pressed by the Ethiopian Memnon, had called him to his aid (Pindar, Pyth. VI.), on which account the name *Philopator* has been given to him. His fall is represented in the Iliad Table, No. 48. United with his friends Patroclus and Achilles, he appears among the shades in the lower world. The other traditions respecting him are of later origin.

ANTIMACHUS; a poet, a native of Colophon, who is supposed to have lived in the 5th century B. C. Adrian, who placed Ennius before Virgil, preferred A. to Homer,—a circumstance which renders the loss of his compositions a subject of great regret. The names of two of his works, the *Thebaid* and the *Lydian*, are preserved, and a fragment of A. is to be

found in the *Analecta* of Brunck. The rest of his remains were published, in 1786, by Schellenburg, under the title of *Antimachi Colophonii Reliquie*.

ANTIMONY is a bluish-white, brittle metal, of a scaly or foliated texture; it has a brilliant lustre, but becomes tarnished by exposure to the air; its specific gravity is 6.7. In this state, it is called the *regulus of antimony*, and is used as an ingredient in the manufacture of the best pewter, in some type-metal, and in casting leaden medallions. By exposure to heat it melts, and, becoming oxydized, rises in dense white fumes, formerly called *argentine flowers of antimony*.—Antimony forms with oxygen several oxydes, with which the acids unite and give rise to numerous salts, the most important of which is the triple one, called *tartrate of potash and antimony*. It is manufactured in the large way by mixing one pound of glass of antimony with a pound of cream of tartar, and boiling the mixture in a gallon of water for an hour or two: it is then filtered, evaporated and set by to crystalize. Tartar emetic is the most generally used antimonial medicine; and it may be so managed as to produce either sweating, purging, or vomiting.—Antimony is found in its metallic state in minute quantities in several countries, and in occasional mixture with ores of silver, lead and copper; but it is from its combination with sulphur, in which state it occurs abundantly in Auvergne, Scotland and Hungary, that the antimony of commerce is furnished. This mineral, the sulphuret of antimony, is found in compact, foliated and radiated masses, as well as in distinct rhombic prisms. Its color is a light lead-gray; it is dull, and often iridescent. Specific gravity, 4.3. It melts in the flame of a candle, and before the blow-pipe, on charcoal, is wholly evaporated, with a sulphureous odor.—It is composed of antimony 72.86, and sulphur 27.14, and in its composition exactly resembles the artificial compound which possesses the same properties.—To obtain the crude antimony of commerce, the above ore is reduced to fragments, and put into large earthen pots, with holes in their bottoms, and these are inserted into other similar vessels; heat is applied to the upper ones, which causes the sulphuret of antimony to separate from its stony gangue, and flow into the lower vessels, which are kept cold; here it concretes into fibrous, crystalline masses, without having undergone any change in its nature during the process. In this

condition, it constitutes the crude antimony of commerce.—From this substance the regulus of antimony is prepared, by roasting the sulphuret of antimony in a reverberatory furnace, until it forms a gray oxyde, 100 weight of which is afterwards mixed with 8 or 10 pounds of argal, or crude tartar, and smelted in large melting pots in a wind-furnace. It also affords, by calcination and subsequent fusion in earthen crucibles, the glass of antimony, which is of so much importance in the preparation of tartar emetic. The Kermes mineral, a popular medicine, is likewise prepared from the sulphuret of antimony, by boiling crude antimony and pearlshes; the Kermes mineral is deposited in the form of a purplish-brown powder. The supernatant liquid, on the addition of any acid, yields an orange sediment, called *golden sulphur of antimony*, which is used by the calico-printers as a yellow color.

ANTINOMIANISM (opposition to the law); the name given, by the reformers of Wittenberg, to the disparagement of the moral law, particularly the law of Moses, by certain Protestants, who aimed thereby to exalt the efficacy of faith in the salvation of man. John Agricola was the most conspicuous member of this party, and, in 1537, violently attacked Luther and Melancthon on this ground, in a public dissertation, in Wittenberg. But, in 1539, he recanted, and published a renunciation of his errors, in 1540, at Berlin.—*Antinomians* is the name given to those who adhere to this doctrine, which had its origin in an erroneous apprehension of the grace of God and the insufficiency of good works.

ANTINOUS; a young Bithynian, whom the extravagant love of Adrian has immortalized. Whether he threw himself into the Nile, with the intention of preserving the life of Adrian, whom he accompanied on his travels, or because weary of his own life, is not to be decided. Adrian set no bounds to his grief for his loss. Not satisfied with giving the name of his favorite to a newly-discovered star in the galaxy (which appellation is still preserved), he erected temples in his honor, called cities after him, and caused him to be adored as a god throughout the empire. His image was, therefore, represented by the arts in every way. Several of these figures belong to the finest remains of antiquity, particularly the statue called the Antinous of Belvedere, in the Vatican, found in the bath of Adrian; and the A. of the Capitol, found in the villa of

Adrian at Tivoli. Antiquaries, however, differ much in opinion concerning these statues, and many will not allow them to be images of A., but recognise in them the characteristics of certain heroes or gods. This dispute is difficult to be decided, because the artists, who represented A. as a god, chose divine ideals, to which they gave his features. The Vatican statue, which goes under his name, is probably a Hermes, the Capitoline probably a Hermes-Antinous. "In all the figures of A.," says Winckelmann, "his countenance has something melancholy; his eyes are always large, with good outlines; his profile gently descending; and in his mouth and chin there is something expressed which is truly beautiful." (See Levezow on *A.*, represented in the *Monuments of Ancient Art*; Berlin, 1808.)

ANTIOCH, or **ANTAKIA** (anciently, *Antiochia*, and *Antigonia*, and *Theopolis*, and *Seleucis*, and *Epiphane*, and *Reblata*), in Syria, 50 miles W. of Aleppo, lon. 36° 18' E., lat. 36° 6' N., once greater and richer than Rome itself, but often ruined by earthquakes, and finally razed by the Mamelukes, in 1269, is now only a small town. It was founded by Antigonus, and captured by Seleucus, who changed its situation, and called it *Antioch*, from his father, Antiochus. Long celebrated as one of the first cities of the East, it was the residence of the Macedonian kings of Syria, and of the Roman governors. It is frequently mentioned in the New Testament, and the name *Christians* was first given to the disciples of Christ in this city (*Acts*, xi. 26). In the 7th century, it was taken by the Saracens, and, in the 11th, by the crusaders, who established a principality under the name of *A.* Boëmond was the first ruler. A. is situated on the Orontes, about 21 miles from the sea. The "Queen of the East" now exhibits hardly any relics of her former splendor; even the ruins are constantly thrown down by earthquakes. The population is less than 20,000; the houses are low, with only one story above ground; the streets narrow; and the whole appearance of the city is dull and melancholy. The banks of the Orontes are covered with mulberries, figs and olives, but the plain of A. is uncultivated. The governor here is called *mohassel*, and is dependent on the pacha of Aleppo, but appointed by the Porte. A. is also the residence of a Greek patriarch.—There was also another Antiochia (ad Pisidiam) in the Greater Phrygia, where the Romans settled a colony. It was famous for a temple of Luna.

ANTIOCHUS; a name of several Syrian kings, which makes an epoch in Roman history. The first who was known by this name, a Macedonian, and general of king Philip, was father of the famous Seleucus (q. v.), by his wife Laodice. The son of the latter, A. Soter, carried on many unsuccessful wars, and is chiefly known for his love of his step-mother, Stratonice. Though he endeavored to subdue his passion, it threw him into a lingering sickness, which continued till the king's physician, Erasistratus, perceived the cause, and disclosed it to his father, who, thereupon, from love to his only son, gave him his young and beautiful bride in marriage. One of his descendants was A. the Great, who succeeded his brother, Seleucus Ceraunus, as king of Syria, 244 years B. C. He chastised Molo, governor of Media, and conquered Ptolemy Philopator, who was obliged to surrender all Syria. He was no less successful against the Parthians, and at length engaged in a contest with the Romans. This is the famous war of A., for which, with the aid of Hannibal, he made great preparations. He did not, however, enter fully into the plans of this general, and sent only one army to Greece, which remained inactive, and was defeated first at Thermopylæ, and several times by sea, till, at length, he became so disheartened, that he did not even contest with the Romans the passage into Asia Minor, where they gained a victory at Magnesia, and obliged him to contract a disgraceful peace. Afterwards, attempting to take away the treasures from the temple of Jupiter Elymæus, he was slain, with all his followers. His second son, Epiphanes, who is represented, in the history of the Maccabees, as a most cruel oppressor of the Jews, attacked the Egyptian king, Ptolemy Philopator, and laid siege to Alexandria. But he afterwards abandoned it, as well as all Egypt, where the Romans took the part of Ptolemy. Many other Syrian kings, under the name of A., with various surnames, succeeded, till, at last, A. Asiaticus, was expelled from his dominions by Pompey, and Syria (see *Syria*) became a Roman province.

ANTIOPE; daughter of Nycteus, king of Thebes (according to Homer, of the river Asopus), renowned through all Greece for her uncommon beauty. Epopeus, king of Sicyon, carried her off, and married her; but Lycus, the successor of Nycteus, who had promised him to punish his daughter, slew Epopeus, and carried A. prisoner to Thebes, where he deliv-

ered her to his wife, Dirce, by whom she was treated with the greatest cruelty. A., however, was happy enough to escape, and to see herself avenged by her own sons, Zethus and Amphiion, whom she boasted to have conceived in the embraces of Jupiter. The rest of her story is told in a variety of ways.

ANTIPAROS. (See *Paros*.)

ANTIPASCHIA, among ecclesiastical writers, denotes the first Sunday after Easter. It is also called *dominica in albis*.

ANTIPATER; a general, and a confidential friend, of Philip of Macedon. Alexander left him governor of Macedonia when he went to Asia. Although he filled this post with honor, reducing to obedience Memnon, a seditious governor of Thrace, and, after a hard-fought battle, overcoming the Spartans, who were struggling for independence, yet Olympias, the mother of Alexander, with whom he was constantly at variance, succeeded in making him an object of her son's suspicion; so that he summoned him to his presence in Asia, and appointed Craterus governor of Macedonia. But Alexander died before this change was accomplished. A. received Macedonia and Greece in the well-known division of the empire, and was appointed guardian of the child with which Roxana, Alexander's widow, was then pregnant. Soon after, he was involved in a war with all the powers of Greece. At first, he was unsuccessful; but, when Leonatus and Craterus came to his assistance, the Greeks again submitted. This war was followed by another with Perdiccas, which terminated as happily. A. died 317 years B. C., at an advanced age, having confided to Polysperchon the guardianship of the young king. The assertion that he caused Alexander to be poisoned, is wholly unfounded.

ANTIPATHY; a natural enmity or aversion of one thing towards another. In a more restricted sense, *antipathy* denotes the natural aversion which an animated and sensitive being feels towards some object presented to it, either in reality or imagination, the cause of which is often mysterious and inexplicable. Such is the aversion of which some persons are conscious under the apprehension or at the sight of particular objects, as cats, mice, spiders, serpents, eels, &c. Many instances of antipathies are no better than fables, and a severe examination would reduce them to the class of vulgar errors. There are also fictitious aversions, having their source in affectation and a pre-

tended delicacy of nerves. The greater part of antipathies arise from prejudice; many from terrors inspired in infancy; and, in most cases, reflection and a gradual accustoming of ourselves to the objects of our dislike will weaken or remove the feeling of aversion; yet there are instances of incurable A., which seems to have its seat in the nervous system.

ANTIPHLOGISTIC CHEMISTRY. (See *Chemistry*.)

ANTIPHONY (alternate song); applied particularly, in the Catholic church, to the verse which is first sung by a single voice, and then repeated by the whole choir, after the psalm has been sung by the two parts of the choir alternately.—Also, a song of the priest, to which the choir or the congregation responds. Hence *Antiphonarium*, or *Antiphonale*, a large volume of Latin songs, from which the canons and other ecclesiastics sing antiphonies, hymns, collects, &c. The 87th psalm, 7th verse, proves that this mode of alternate singing formed a part of the old Jewish worship. Its introduction into the Christian church is ascribed to Ignatius, a father of the church, in the 1st century after Christ. The Western church is said to have received it more particularly from Ambrose. (q. v.) At the end of the 6th century, Gregory the Great composed an Antiphonary in honor of the virgin Mary, and the other saints. In the Protestant church, two sorts of antiphony are known. They consist either of whole psalms, as the Litany, or of only a few words of Scripture. The latter sort includes the introductory chant of the preacher, and the mutual response of the choir and the congregation.—A species of English cathedral music is called an *anthem* or *antiphony*. Handel has composed several anthems.

ANTIPHRAISIS. This may be defined a form of speech, in which we affirm a thing by denying it to be the contrary; as, *He is no fool*. It is also used, though less correctly, to signify a figure of speech, by which the name of any thing is derived from a quality it does not possess; e. g., the name of the Fates, *Parcæ*, from *parcere*, to spare, though to spare is foreign to their nature. So also the name of the Furies, *Eumenides*. Such appellations are usually ironical.

ANTIPODES; the name given to those inhabitants of the earth who are diametrically opposite to each other, and, of course, turn their feet towards each other. The name comes from the Greek *ἀντι*, against, and *πῶς*, a foot. The zenith of

the one is the nadir of the other. The antipodes live in similar but opposite latitudes, and their longitudes differ 180 degrees. Hence the difference in their days is about 12 hours, and their seasons are reversed. The spherical form of the earth naturally leads us to the idea of the antipodes, of whose existence some idea was entertained even before the age of Cicero. The fathers of the church, however, found in this theory a contradiction of the Bible, and, in the 8th century, Virgilius, archbishop of Saltzburg, was excommunicated for maintaining it. Circumnavigators of the globe first put the question beyond all doubt, and the opposition to the doctrine of the sphericity of the earth, and the existence of the antipodes, is now done away.

ANTIPOPE; thus are called all those who, at different periods, have produced a schism in the Roman Catholic church, by opposing the authority of the pope, under the pretence that they were themselves popes. This is the Catholic explanation, because it is evident that the Roman church cannot admit that there ever existed two popes; but the fact is, that, in many cases, both competitors for the papal chair (sometimes there were even three) were equally antipopes; that is to say, the claims of all were equally good. Each was frequently supported by whole nations, and the schism was nothing but the struggle of political interests, which induced particular governments to support a pope against the pope supported by other governments. Those were the most unhappy periods of the Roman church, when to many other evils were added violent contests between rival candidates for the papal chair, and the consciences of the honest believers were offended and perplexed by the excommunications which the adversaries thundered against each other. These quarrels, of course, lessened much the belief in the pope's sanctity and infallibility, shook the whole fabric of the church, and contributed much to prepare the way for the great reformation; but it would be unjust to throw on the popes alone the blame of these unhappy conflicts. They were natural consequences of the diminution of the dependence of the different governments on the papal see, resulting, in a great measure, from the increase and diffusion of knowledge. Another cause of these schisms was the diminished authority of the clergy, whose corruption and profligacy, in many countries, had given the greatest offence throughout Christen-

dom. Of this the most melancholy proof may be found in almost any work of the 14th and 15th centuries, as well as in the proceedings of the councils. Those, for instance, of the councils of Constance and Basle, and some of the writings of Petrarcha, who lived at Avignon when it was the seat of the papal court, are full of such facts and complaints of them. Only one antipope is recorded to have existed at an earlier period—Novatianus, a Roman priest and heretic, the rival of Cornelius, in 251. Amadeus VIII, duke of Savoy, was the last antipope. He was elected by the council of Basle, in 1439, in opposition to Eugene IV and Nicholas V. But he renounced his title in favor of the latter, in 1449. Similar scenes had taken place in the latter ages of the Roman empire. When that gigantic structure was fast verging to ruin, emperors rose against emperors, elected and supported by their soldiers in different quarters of the world. In fact, such divisions must always take place whenever a vast empire, spiritual or temporal, declines, and loses that energy which had conducted it to greatness. Thus we find in the Mohammedan history, at one period, many anticaliphs.

ANTIQUARIES; men who employ themselves in the study or collection of antiquities. In Italy, the ciceroni are often antiquaries. In England, and particularly in Scotland, there are important associations of antiquaries. In Germany, those booksellers who deal exclusively in old books, are called by this name, and the custom has extended beyond this country. In France, these dealers are ironically called *bouquinists*, from *bouquin*, a book of little value. In London, the most valuable collections may be found at Longman's and Lackington's; in Paris, at Renouard's; in Madrid, at Sancha's; in Rome, at de Romanis'; in Florence, at Molini's; in Utrecht, at Wild's and Altheer's; and in Leyden, at Luchtmans's. In Germany, Weigel in Leipsic, Meusel in Coburg, Hässler and Nestler in Hamburg, and Sommerbrod in Berlin, are among the best known, and often have very valuable editions.

ANTIQUE. After the convulsions which attended the settlement of the tribes of the North and the East on the ruins of the Roman empire had, in some degree, subsided, and the nations of Europe began to enjoy, to a certain degree, the blessings of peace, a regard for science and the arts grew up among the rude conquerors, and revived in the minds of the vanquished.

In the midst of barbarism, the remains of Grecian and Roman civilization, literature and art appeared like the productions of a better and nobler world; and the word *antiquus*, applied to literature, science or art, became almost synonymous with *excellent*. By degrees, the relics of ancient literature were collected in libraries, and those of art in museums. It was not, however, till the 14th and 15th centuries, that the effects of the admiration and study of the numerous and continually increasing collections of antiques began to be perceptible, and first of all in Italy. What is termed *modern art*, in contradiction to *ancient*, then had its origin. This was based, indeed, on different principles from the ancient, inasmuch as it was influenced by the spirit of Christianity, of chivalry, and the prevailing character of the Teutonic nations. Still the noble impulse, which it received at this time, was derived almost entirely from the study of the remains of antiquity, to which the greatest masters of modern times devoted themselves most intensely; though their own works bear distinctly the stamp of their own characters, and of the age in which they lived. The great question then arises,—In what does the difference between ancient and modern art consist? To explain this, it would be necessary to go deeply into the nature of the fine arts; and, moreover, it can never be correctly understood without personal acquaintance with the great works of both. Some of the most striking diversities are, that the ancient art attaches more importance to the form; ancient art, also, aims particularly to express general ideas, and to give something of a general character even to individual representations; while the modern confines itself more to individual characteristics. To explain the reasons of the existing differences, would require a closer investigation of the religion and government, the science and social life of the ancients, as distinguished from those of the moderns. One of the principal causes is to be found in the different light in which man and outward nature are regarded, in the popular belief of antiquity, from that in which Christianity considers them. The ancient creeds gave a divine character to the outward creation, and represented the gods in the figures of men; while the Christian religion has been generally understood as inculcating contempt for all things earthly, and the Scriptures themselves continually connect the idea of sin with that of the world.—We shall pursue these ideas farther, under

the articles *Classical* and *Romantic*, also in the article *Philosophy*.—When we consider the remains of Greek and Roman art, we find the former far superior; in fact, the Roman might be considered an after-blossom of the Greek, sprung from the immensely rich collections of antiques in Rome. Greek art was so pure and chaste, so truly based on nature, and yet strove so zealously after ideal beauty, that the study of its remains is, and must continue, indispensable to the artist and the connoisseur. Among the circumstances which contributed to produce its excellence, we may mention, in addition to the influence of the prevailing religion (which saw in the gods ideal men, raised men to the rank of gods, and personified every quality in its multitude of gods and demigods), the number of small states, and also the joint celebration of the Olympic games by all of them, the inventive and finely-tempered spirit of the people, their happy views of life, the mildness and beauty of the climate, and the fine marble which the country afforded in abundance. In painting, as we have already said, the moderns are superior, although the ancients had many excellent artists in this branch of art. In poetry, we cannot attribute to either the superiority. In architecture, both have reached a high degree of excellence. The Gothic architecture is esteemed, by many persons, as perfect as the ancient, though resting on very different principles; others, however, regard it as decidedly inferior. However much the remains of ancient art and literature deserve our admiration and study, there was a time when they were overrated, at the expense of the best productions of modern times. This was particularly the case when the real spirit of art had fled, and the power of invention was lost. It was reserved to the present age to value both according to their merits, which can never be impartially estimated, while one is made the standard of the other. Each must be studied and judged on its own principles.

ANTIQUITY. The word *antiquity*, *old time*, in opposition to *new*, is in itself indeterminate, but is, in general, applied to the time which elapsed between the creation of the world and the irruption of the barbarians into the Roman empire, which, in connexion with the wide spread of Christianity, makes a great epoch in the history of the human race. In a narrower sense, it is applied to the two principal nations of former times, Greece and Rome, or to the early age of any nation. The

name *antiquities* is given to the remains of ancient art. The phrase is used in a wider sense, to signify all which belongs to a knowledge of the politics, manners, religion, literature and arts of the nations of antiquity, or of the modern nations, until the existing order of things commenced. We have no single work giving such a general picture of nations and states, but only separate treatises on the antiquities of the Hebrews, Greeks, Romans, Etrurians, Gauls, Germans, Britons, &c. The want of a knowledge of antiquities was first felt in the 15th century, when the zeal for classical learning began to revive. In the earlier works on this subject, one finds extensive learning, but no fixed plan, no critical division of the time and subjects. In the 18th century, the rich collections of materials, which had formerly been made, were critically examined and systematically distributed. The *Bibliographia Antiquaria* of Fabricius (Hamburg, 1713—1716) contains valuable information, especially the new edition by Schaffishausen (1740), to which it is desirable that some additions should be made. Among the principal works treating of Grecian and Roman antiquities are, *Thesaurus Antiquitatum Græcarum*, by Gronovius (Leyden, 1697—1703, 13 vols.); *Thesaurus Antiquitatum Romanarum*, by Grævius (Utrecht, 1694—99, 12 vols.); *Novus Thesaurus Antiqu. Roman.* by Sallengre (Hague, 1716—19, 3 vols.); and *Poleni Utriusque Thes. nova Supplem.* (Venice, 1737, 5 vols. fol.) Burmann has left a *Catalogus Librorum qui in Thes. Rom., Græc., Italico et Siculo continentur* (Leyden, 1725). The information collected by these antiquaries has been revised and arranged by later scholars. A very useful work on Roman antiquities is *Sam. Pitisci Lexicon Antiquit. Roman.* (Leyden, 1713; Venice, 1719, 3 vols.; Hague, 1737, 3 vols.), an edition of which appeared at Berlin, 1793. The assistance which these works afforded to the scholar, desirous of obtaining a just idea of Grecian and Roman literature and history, stimulated the students of the Oriental languages to similar labors. Their attention was directed to Hebrew antiquities, on account of the connexion between Hebrew literature and customs and the evidences of Christianity. On the subject of Hebrew antiquities, Iken, Faber, Warnekros, Bellermand, Jahn and others, have given us books as useful as they are interesting. On the antiquities of the other nations of the East, the Asiatic Researches, and the labors of Goguet, furnish

valuable information. Sir William Jones, Anquetil du Perron, A. W. von Schlegel and others, have thrown light on the antiquities of India; Zoega, Denon and others, on those of Egypt; von Hammer, Rhode, Görres, on those of Persia. Many collections exist, which treat of the antiquities of the modern nations of Europe. The Italians have very rich ones by Muratori, Donati, Maffei and others; the French, those of Montfaucon, Millin; and the English, the *Archæologia Britannica*. They are found also among the Germans and other northern nations. Since the beginning of the 18th century, the arts have been made a separate branch of antiquarian research.

ANTISABBATARIANS; a modern religious sect, who deny the necessity of observing the Sabbath. Their chief argument is, that the Sabbath was a Jewish institution; and that, in the New Testament, no commandment for keeping it is to be found. The Quakers do not object to the observance of the Sabbath, yet they attach importance neither to this nor to any form or ceremony, and believe that there is no difference, in a religious point of view, between Sabbath and any other day.

ANTISEPTICS; remedies against putrefaction. The ancients thought it possible, by certain preparations, to resist a general tendency to putrefaction, which they supposed to exist in the system. The moderns have only attempted to prevent the affection of the sound by the mortified parts, by means of external applications, which favor their separation. We are indebted to chemistry for most of these remedies, which generally operate by absorbing the liquids and gases of the gangrenous parts. Among antiseptical substances, charcoal-powder has hitherto been one of the most esteemed, but the chloride of lime has been recently discovered to be much more efficacious in arresting the progress of putrefaction. Placed in contact with the affected parts, it destroys the offensive odor which they exhale, and prevents the extension of the corruption. The practitioner must adapt the treatment to particular circumstances: to inflammation he opposes bleeding, emollients, &c.; to weakness, nourishing food, tonics, &c.; at the same time with the local application of the antiseptic.

ANTI-SLAVERY SOCIETY. (See *Abolition of Slavery*.)

ANTISPASMODIC (Greek, *ἀντι*, against, *σπασμος*, the cramp); that which has the power of relieving the cramp. Antispas-

modics are more accurately defined, medicines proper for the cure of spasms and convulsions. Opium, balsam of Peru, and the essential oils of many vegetables, are the most useful of this class of medicines.

ANTISTHENES; founder of the sect of the Cynics; born at Athens, in the 89th Olympiad, 424—421 years B. C. He enjoyed the instructions of the sophist Gorgias, and followed the profession of a rhetorician; but, after he had heard Socrates, he renounced the vain ornaments of eloquence, in order to devote himself entirely to philosophy. From the doctrines of Socrates he acquired that zeal for virtue, and that unexampled hatred to vice, by which the school that he founded is distinguished. He made virtue to consist in voluntary abstinence, and independence of exterior circumstances; and he despised wealth, honors, sensual pleasure, and even knowledge. He aimed to reduce body and mind to the fewest possible wants; nor did he hesitate to appear publicly as a beggar, with a wallet on his back, and a staff in his hand. Plato perceived the true design of this strange behavior. "I see thy vanity," said he to him, "through the holes of thy coat." The eccentricity of his behavior induced many to imitate him. His most distinguished scholar was Diogenes, (q. v.) The latter is celebrated for the firmness and vivacity of his mind, and the originality of his remarks; but the conduct of A. was more dignified. He was unalterably a virtuous citizen. He first attacked the accusers of Socrates, procured the banishment of one of them, and the death of another. This, however, Barthélemy doubts. His conversation was agreeable, and is praised in the *Symposium* of Xenophon. After the death of Socrates, he took up his abode in the Cynosarges, a school of Athens; from which circumstance some suppose the school derived its name. The opinions of A. are well known. His numerous works are all lost; for the letters published under his name are considered spurious. The time of his death is unknown.

ANTISYPHILITIC; a term applied to remedies used in cases of syphilis. They are almost numberless; and there exists, perhaps, not one substance in the 3 kingdoms of nature, to which an anti-syphilitic power has not been ascribed. The most efficacious are preparations of mercury, which is administered in a great variety of ways; sudoriferous vegetables, the combinations of which are also extremely numerous; and preparations of

gold, particularly of the muriate of this metal.

ANTITHESIS (opposition); a figure of speech, by which two things are attempted to be made more striking, by being set in opposition to each other. This figure often produces a great effect, yet, by too frequent use, becomes disgusting. Lessing affords an instance of a happy antithesis, when, in the review of a book, he says, "This book contains much that is good, and much that is new; only it is a pity that the good is not new, and the new is not good." Some use antithesis only to express the connexion of things exactly opposite.

ANTITRINITARIANS; all who do not receive the doctrine of the divine Trinity, as it is represented by the Nicene and Athanasian creeds, and either put the Son and the Holy Spirit in the Godhead below the Father, or consider Christ merely a man, and the Holy Spirit an arbitrary personification of the divine mind. In the early period of the Christian church, parties maintaining these sentiments were very numerous; especially the Arians, Sabellians and Pneumatomachists. The name *Antitrinitarian* first arose in the 16th century, and was applied to Socinians, or Unitarians, who remonstrated against the system of Episcopius, who died in 1643, and to a great number of theologians, who ventured, in their writings, to maintain the preceding opinion. Many were unwilling to acknowledge Antitrinitarians as Christians, esteeming them enemies to the fundamental doctrines of Christianity, or even to tolerate them in Christian states. The Spanish Protestant, Michael Servetus, was burnt at Geneva, in 1553, at the instigation of Calvin, on account of this heresy, and the severest edicts were once issued against them in England. An English clergyman, however, Theophilus Lindsey, at London, in 1774, and a merchant, William Christie, at Montrose, in Scotland, formed Unitarian congregations, who separated themselves from the established church, since which time they have become numerous, both in England and America. (See *Unitarians*.)

ANTIUM; an ancient city of the Volsci, situated on the Tuscan sea. In the neighborhood, the Romans gained their first naval reputation, in an engagement with the Antiates. It was entirely destroyed by the Saracens; but vestiges of it still remain in Capo d'Anzo, or Antio.

ANTOINETTE (Marie Antoinette Josephe

Jeanne) of Lorraine, archduchess of Austria and queen of France, born at Vienna, Nov. 2, 1755, was daughter of the emperor Francis I and Maria Theresa. She received a careful education, and obtained an acquaintance with various branches of knowledge. Nature had bestowed upon her an uncommon share of grace and beauty. In a letter of Maria Theresa to her future husband, she says, among other things, "Your bride, dear dauphin, is separated from me. As she has ever been my delight, so will she be your happiness. For this purpose have I educated her; for I have long been aware that she was to be the companion of your life. I have enjoined upon her, as among her highest duties, the most tender attachment to your person, the greatest attention to every thing that can please or make you happy. Above all, I have recommended to her humility towards God, because I am convinced that it is impossible for us to contribute to the happiness of the subjects confided to us, without love to Him, who breaks the sceptres and crushes the thrones of kings according to his own will."—The departure of Marie Antoinette from Vienna filled the capital with sorrow. Her arrival at Strasburg, and her journey to Compiègne, where Louis XV and the dauphin received her, and to Versailles, where her marriage took place, May 16, 1770, had the appearance of a triumph. It was subsequently remarked, that, immediately after the marriage ceremony, a fearful thunder-storm, such as had scarcely ever before been witnessed, threw Versailles and all the surrounding country into the greatest terror. Anxious minds indulged in yet more fearful forebodings, when, at the festivity which the city of Paris prepared, May 30, for the celebration of the dauphin's marriage, through the want of judicious arrangements, a great number of people, in the rue Royale, were pressed or trodden to death in the crowd. 53 persons were found dead, and about 300 dangerously wounded. When Marie Antoinette, after the death of Louis XV, became queen, she imitated the example of Louis XII. An officer of the *gardes du corps*, who had formerly displeased her, and now was about to resign, she ordered to remain at his post, and forget the past—"Heaven forbid that the queen should avenge the injuries of the dauphiness!" Thus she continued to win the hearts of the people by mildness and generosity; in particular, she took the most energetic measures to relieve the sufferers in the

dreadful winter of 1788. But, about this time, she drew upon herself the hatred of the court party, who used every means to make her odious to the nation. She was accused, in pamphlets, of continually contriving plots, and though none of the accusations could be proved, and many of them were wholly improbable, yet it must be confessed that the young and inexperienced queen gave cause for them. Her lively imagination often gave her the appearance of levity, and sometimes of dissimulation. A natural restlessness led her to change, to new fashions, to a continual varying of her diversions. Great sums of money were, by this means, taken from more important objects. It was still more to her disadvantage, that she injured her dignity by neglecting the strict formality of court manners. Besides, she expressed herself with pettishness, in reply to the censures that were passed upon her. Her enemies now spread abroad a report that she was still an Austrian at heart, and a natural enemy to the French, to whose happiness she could no longer contribute. An extraordinary occurrence added fuel to the flame of calumny, while it subjected the name of the queen to a disgraceful law-suit. Two jewellers demanded the payment of an immense price for a necklace, which had been purchased in the name of the queen. In the examination which she demanded, it was proved that she had never ordered the purchase. A lady of her size and complexion had impudently passed herself off for the queen, and at midnight had a meeting with a cardinal in the park of Versailles. (See *Lamothe and Rohan*.) Notwithstanding this, the enemies of the queen succeeded in throwing a dark shade over her conduct. When Calonne had reported a great deficiency in the finances, the cause was blindly attributed to the queen's extravagance. At length it became necessary to summon a meeting of the states general. The queen was present at the opening of the first session; but from that moment her tranquillity was gone. Events soon followed, which put her courage to the test. She appeared with her husband at the banquet, which the *gardes du corps* gave at Versailles, Oct. 1, to the officers of the troops of the line, where, soon after the departure of the court, the national cockade was trampled on. This excited the Parisians still more against the queen. They regarded her as the soul of the party which, at that time, was collecting an army against Paris, and against the national

assembly. On the 5th, the Parisians rushed violently to Versailles. Early on the 6th, they broke into the castle, murdered several of the body-guards, and uttered against the queen the most furious threats. In the middle of the night, a clergyman wrote to her, "Take measures for your preservation; early in the morning, at 6 o'clock, you are to be murdered." She remained tranquil, and concealed the letter. The infuriated mob rushed into her chamber; she fled to the king. To put a stop to the scene of murder, the king and queen showed themselves, with both their children, in the balcony. This spectacle made a momentary impression upon the enraged people; but soon the cry resounded from every mouth, "No children! the queen—the queen alone!" She instantly put her son and daughter into the arms of the king, and returned to the balcony. This unexpected courage disarmed the mob; their threats were followed by shouts of approbation. The same day she was obliged to view a most fearful spectacle, for six hours, on her way to Paris. Before her carriage were borne, on pikes, the heads of two guards; intoxicated furies surrounded her, with the most horrid imprecations. When she was asked about the scene that had just ended, by the officers of justice, who desired to punish the guilty, she replied, "Never will I accuse one of the king's subjects;" and when the question was repeated, "I have seen all, I have heard all, I have forgotten all," was her answer. The first month after her arrival in Paris, she expended 300,000 livres in redeeming clothes pledged by the poor to the pawnbrokers; but all her benefits were insufficient to appease their exasperated minds. In 1791, when Louis XVI determined to flee, she followed her husband, though she saw the attempt was fruitless. From Varennes, she was brought back to the Tuileries, and when the committee of the constituent assembly demanded an explanation, she answered, "As the king wished to depart with his children, nothing in the world could hinder me from accompanying him. I have given sufficient proof, for these two years, that I would never desert him. What made me more decided on that point was, the firm conviction that the king would never leave France; if he had wished to do so, I should have employed every effort to restrain him." This tempest was followed by a momentary calm. In the meantime came on the 20th of June and the 10th of August, 1792. Prepared for whatever

might happen on the latter of these days, the queen exerted all her power to excite her husband to meet death sword in hand. Led with him into the legislative assembly, she heard his deposition announced, together with the appointment of his judges, and then went with him to the temple. None of her female attendants were suffered to accompany her. Here she occupied the only comfortable chamber with her daughter and the princess Elizabeth. Close bars of iron secured the window, admitting only a glimmering light. She now exhibited the full strength of her character. Invariably calm in the circle of her friends, she urged them to disregard sickness and suffering. When Louis XVI informed her of his condemnation, she congratulated him on the approaching termination of an existence so painful, and the unperishing reward that should crown it. After her husband's death, she asked nothing of the convention but a mourning-dress, which she wore the remainder of her days. July 4, 1793, she was separated from her son. She felt that this separation was forever, yet her firmness was unchanged. Aug. 5, at midnight, she was removed to the keeper's house. A dark and damp dungeon here was her last abode. Oct. 3, the convention ordered her to be brought before the revolutionary tribunal. She was charged with having dissipated the finances, exhausted the public treasury, given large sums out of it to the emperor, with having corresponded with foreign enemies, and favored domestic tumults. But, notwithstanding the multitude of witnesses who were examined, no evidence could be brought against her; and her defender, Chauveau-Lagarde, exclaimed justly, "I am embarrassed, not to find answers, but plausible accusations." Bailly, then mayor of Paris, who was summoned as a witness, had the courage to take the queen into his protection, without hesitation, and to censure, with the greatest severity, her blood-thirsty accuser, Fouquier-Tinville, for his testimony, which all might see to be false. The queen herself replied to all inquiries with firmness and decision. When Hébert shamefully accused her of having seduced her own son, she answered, with the deepest indignation, "I appeal to every mother here, whether such a crime be possible." She heard her sentence of death with perfect calmness, and soon gently fell asleep, when she was carried back to her prison, after sitting 18 hours. The next day, at

11 o'clock, she ascended the cart which conveyed her to the scaffold. Great efforts were made to induce the people to insult her on the way, but a deep silence reigned. The charms for which she was once so celebrated were gone. Grief had distorted her features, and, in the damp, unhealthy prison, she had almost lost one of her eyes. Her look seemed to fill the fierce people with awe. At 12 o'clock, the cart arrived at the place of Louis XV. She cast back a long look at the Tuileries, and then ascended the scaffold. When she came to the top, she threw herself on her knees, and exclaimed, "O God, enlighten and affect my executioner! Farewell, my children, forever; I go to your father!" Thus died the queen of France, Oct. 16, 1793, towards the close of the 38th year of her age. (See *Marie Antoinette, à la Conciergerie; Fragm. Hist. Publ. par le Comte de Robiano*, Paris, 1824; and *Mém. sur la Vie privée de Marie Antoinette, Reine de France, &c.*, by madame Campan (her reader), 5th edition, 4 vols., Paris, 1823.)

ANTONELLO of Messina. (See *Oil-Painting*.)

ANTONINUS (Annius Verus), the Philosopher, best known by the name of *Marcus Aurelius*, born A. D. 121, ascended the throne A. D. 161, after the death of Antoninus Pius, who had adopted him. He voluntarily divided the empire with Lucius Verus (see the succeeding article), whom he made emperor, and united in marriage with his daughter Lucilla. Brought up and instructed by Plutarch's nephew Sextus, the orator Herodes Atticus, and the famous jurist L. Volusius Mecianus, he had become acquainted with learned men, and formed a particular love for the Stoic philosophy. While his generals, Statius Priscus, Avidius Cassius, Marcus Verus and Fronto, overcame the Parthians, conquered Armenia, Babylon and Media, and destroyed the great city Seleucia, on the Tigris, he devoted his attention to Rome and Germany. The former was laid waste by pestilence, famine and inundations, the consequences of which he endeavored to mitigate; the latter kept the Roman territory in continual alarm, by frequent invasions which, however, were always repulsed. At the same time, he undertook to improve the morals of the people, and the administration of justice. After the termination of the Parthian war, both emperors celebrated a triumph, and assumed the title *Parthicus*. But a fearful pestilence soon broke out, with which the

eastern army infected all the countries they passed through. In addition to this, there were earthquakes, inundations, and a universal insurrection on the confines of the empire, from Gaul to the Black sea. Both emperors went to Aquileia, in order to attack the Marcomanni, early in the spring. A part of the enemy submitted for a time, but soon took up arms again. For 8 years, they fought with various success. Verus died, A. D. 169, in the first year of the war. A. D. 174, the enemy invaded Italy, and, as the treasury was exhausted, the emperor saw himself reduced to the necessity of selling the most valuable furniture of the palace. In the following campaigns, the Romans came off conquerors. A. D. 178, when the emperor, in the city Gran, in the war against the Quadi, was surrounded on every side by his enemies, he was reduced to extremity from want of water. A fearful tempest arose, a sudden shower refreshed the army, and the Quadi were vanquished. Afterwards, the Marcomanni, the Quadi, as well as the rest of the barbarians, sued for peace. The sedition of the Syrian governor, Avidius Cassius, who had brought Egypt and the region within mount Taurus to own his authority, called off the emperor from his conquests; but, before he reached Asia, the rebel was slain by his own party. Aurelius pardoned all who were engaged in the revolt, marched in triumph to Rome, and busied himself about the internal concerns of the empire, till new incursions of the Marcomanni compelled him once more to take the field. He conquered the enemy several times, but was taken sick at Sirmium, and died, according to Aurelius Victor, at Vindobona, in the 59th year of his age, and 19th of his reign.—The best editions of the *Meditations*, which he wrote in Greek, and in which he acknowledges himself a follower of the Stoics, are by Casaubon, London, 1643; Morus, Leipsic, 1775; and Schulz, 1802, translated by Schulz and Kuhn, with annotations.—Aurelius was one of the best emperors who ever governed Rome, although his philosophy and the natural magnanimity of his character did not restrain him from ordering the persecution of the Christians in Gaul.

ANTONINUS PIUS (Titus Aurelius Fulvius), of a family originally from Nîmes, in Gaul, was born at Lavinium, in the neighborhood of Rome, A. D. 86. His father, Aurelius Fulvius, had enjoyed the consulship, and, A. D. 120, he succeeded to the same dignity. He was one of the

four persons of consular rank, among whom Adrian divided the supreme administration of Italy. He then went, as proconsul, to Asia, and, after his return to Rome, became more and more the object of Adrian's confidence. By his wife, Faustina, the daughter of Annianus Verus, whose licentious conduct he wisely endeavored to conceal from the view of the world, he had 4 children. They all died but Faustina, who afterwards became the wife of Marcus Aurelius. A. D. 138, he was adopted by Adrian, for which reason he, in his turn, adopted L. Verus and M. Annianus Verus (Marcus Aurelius). The same year, he ascended the throne, and under him the empire enjoyed tranquillity and happiness. Temperate and simple in his private life, ever ready to assist the necessitous, an admirer of virtue and wisdom, he was truly the father of his people. He often repeated those beautiful words of Scipio, "I had rather preserve the life of a citizen than destroy a thousand enemies." His wise frugality enabled him to diminish the taxes. The persecutions of the Christians he speedily abolished. He carried on but a few wars, viz. in Britain, where he extended the Roman dominion, and, by raising a new wall, put a stop to the desolating invasions of the Picts and Scots. The senate gave him the surname *Pius*, i. e. remarkable for filial affection, because, in gratitude to the memory of Adrian, his second father, he had built a temple in honor of him. Conflagrations, floods and earthquakes spread desolation in many places during his reign, but his generosity did much to mitigate the consequences of these unhappy events. He died A. D. 161, 74 years old, having reigned 23 years. His remains were deposited in the tomb of Adrian. The senate built a pillar to his memory, which is yet standing, under the name of the *Antonine column*. The whole kingdom lamented him, and the following emperors assumed his name as an honor. It has been said of him, "He is almost the only monarch that has lived without spilling the blood of his countrymen or his enemies."

ANTONINUS, the wall of; a barrier erected by the Romans across the isthmus between the Forth and the Clyde. It was constructed A. D. 140, and consisted of a ditch, from 12 to 14 feet wide, the wall being formed of the earth that was thrown up. This wall is now nearly demolished by the ploughshare. General Roy, in his 35th plate, has traced its course, and given plans of the station

belonging to it. This wall was the third rampart built by the Romans against the incursions of the North Britons. It is called, by the people in the neighborhood, *Graham's dyke*.

ANTONIO, Nicholas; a native of Seville in Spain; born in the year 1617. After 22 years spent at Rome, in the capacity of agent-general for Spain, he returned to Madrid, and obtained a seat at the council-board. His works are, *Bibliotheca Hispana Vetus*, in 2 folio volumes; *De Exilio*, Lib. iii., folio, published in 1659; *Bibliotheca Hispana Nova*, 2 vols. folio, 1672, reprinted in 1783; and *Censura de Historicis Fabulis*, folio, 1742. His library was of great value. He died 1684.

ANTONIO, St.; a Dutch fort of Axim, on the Gold Coast of Africa. It belongs to the West India company.—This is also a name of one of the cape de Verd islands, separated from St. Vincent by a narrow, navigable channel, 15 miles broad. The inhabitants, mostly Negroes, about 500 in number, live, notwithstanding all the plenty of the island, in wretched poverty. Lon. 0° 26' E.; lat. 18° 4' N.

ANTONIUS, Marcus, the triumvir, son of the prætor, and grandson of the orator of the same name, born 86 years B. C., was connected with the family of Cæsar by his mother Julia, a lady of distinguished excellence. Debauchery and prodigality marked his youth. To study eloquence and the art of war, he went to Greece, and from thence followed the consul Gabinus on a campaign in Syria. He showed much activity and courage here, as well as in Egypt, where he aided in the establishment of Ptolemy Auletes. The soldiers, whom he treated with extreme generosity, indulgence and confidence, conceived a strong affection for him. In Rome, he united with Curio, and, like him, supported the party of Cæsar. He became augur and tribune of the people; but some of his projects excited such odium against him, that, with Curio and Cassius Longinus, he fled for refuge to the camp of Cæsar. This became one of the pretences for civil war. At the breaking out of this war between Cæsar and Pompey, A. was appointed by Cæsar commander-in-chief in Italy: he afterwards led a considerable force to Epirus, to his assistance. In the battle of Pharsalia, he commanded the left wing, and afterwards returned to Rome with the appointment of master of the horse and governor of Italy. He degraded himself so deeply by acts of excess and violence, that, on his return, Cæsar treated him

with great coldness. About this time, he married Fulvia, the widow of Clodius, who long ruled him. When Cæsar returned from Spain, A. regained his favor by the basest flattery, and, B. C. 44, became his colleague in the consulship. At the *Lupercalia*, he threw himself publicly at Cæsar's feet, and thrice offered him a diadem, which he exhibited amid the shouts of the people. Soon after Cæsar was assassinated, and A. would have shared the same fate, had not Brutus, who hoped to gain him over for the republic, stood up in his defence. A. delivered, over the body of Cæsar, a funeral oration, in the course of which he spread out his garment stained with blood, and thus excited the people to anger and revenge. The murderers were obliged to flee, and A. long ruled with unlimited power. After having many times quarrelled with young Octavius, the heir of Cæsar, who aspired to the supreme power, and, from political motives, took the side of the senate, he was reconciled to him, and went with an army to Cisalpine Gaul, the government of which fell to his share, and laid siege to Mutina, which Decimus Brutus valiantly defended. In the mean time, Cicero delivered his famous orations against him. The senate declared him a public enemy, and both consuls, Hirtius and Pansa, accompanied by Octavius, met him in the field. At first, A. vanquished Pansa in a bloody battle, but Hirtius hastened to his aid, and A. was subdued. Both consuls, however, fell, and Octavius took the head of the republican army. A. fled with his troops over the Alps, amid great difficulties and privations. Lepidus then commanded in Gaul, and A. fled to his camp in mourning garments, and soon gained the affections of the army, so that Lepidus was obliged to resign the command to him. Plancus, also, and Pollio, strengthened his party with their forces; so that A., who, a short time before, had fled from Italy, returned now at the head of 23 legions and 10,000 horse. Octavius, who had hitherto appeared to be a supporter of the senate, and a defender of republican freedom, now suffered the mask to fall off. He marched against A. and Lepidus, and, on the small island of Reno, not far from Bologna, or, according to some, on the island of Panaro, near Modena, had that memorable meeting with them, in which they divided among themselves the whole Roman world. Here they decided upon the proscription of their mutual enemies: each gave up

his friends to the other. Upon this, the triumviri marched to Rome, and their steps were marked with murder and rapine throughout Italy. A. caused Cicero's head and right hand to be fixed up, as a spectacle, on that same rostrum from which his eloquence had so often been victorious. 300 senators and 2000 knights perished in this proscription. When the sum of money necessary for the war was procured, viz. 200,000,000 sesterces (about 6,300,000 dollars), and the triumviri had appointed magistrates for several years, B. C. 42, A. and Octavius departed for Macedonia, where the united forces of their enemies, Brutus and Cassius, formed a powerful army. At Philippi, A. commanded in an engagement against Cassius, who, when he perceived the event of the fatal battle, ordered one of his slaves to stab him. After the second battle, Brutus, also, destroyed himself. At the sight of his body, A. discovered the deepest emotion, covered it with his cloak, and gave orders that it should be interred with the highest honors. He then went to Greece, visited the public schools at Athens, and manifested his admiration of this city, splendid even in its ruins. Thence he proceeded to Asia. In Cilicia, he ordered Cleopatra, queen of Egypt, to apologize for her insolent behavior to the triumviri. She appeared in person, and her charms fettered him forever. He followed her to Alexandria, where, in a constant course of dissipation, he bestowed not even a thought upon the affairs of the world, till he was aroused by a report that hostilities had commenced in Italy, between his wife, Fulvia, and Octavius. A short war followed, which was decided in favor of Octavius, before the arrival of A. in Italy. The death of Fulvia facilitated a reconciliation, which was sealed by the marriage of A. with Octavia, the sister of Octavius. The two armies made a new division of the Roman dominions. A. obtained the East, Octavius the West. For mere form, Africa was consigned to the feeble Lepidus. With Sextus Pompey, who ruled the Mediterranean, a treaty was made. Upon this, A. went to Athens, made a campaign against the Parthians, which brought him but little honor, and then returned to Italy. By the interposition of Octavia, there appeared to be perfect harmony between the triumviri; but, after his return to Asia, A. gave himself up to a most abandoned course of life; lavished upon Cleopatra, without regard to the interests of the state, whole kingdoms and

provinces; and exercised the most open injustice. After a second disgraceful campaign against the Parthians, he took Artavasdes, king of Armenia, prisoner, by treachery, accusing him of want of fidelity, and carried him, in triumph, to Alexandria. Octavius excited against A. the displeasure of the Romans, by a relation of his conduct. War between the two rivals was inevitable, and both began to prepare for it. Amid a round of pleasures, A. neglected his most important affairs, and filled the island of Samos, the rendezvous of his troops, with musicians and revellers, and, at the same time, divorced Octavia. These measures were followed by disapprobation as universal as the knowledge of Octavia's magnanimity and the hatred of Cleopatra's arrogance. At length, war was declared at Rome against the queen of Egypt, and A. was deprived of his consulship and government. Each party assembled its forces, and A. lost, in the naval battle at Actium (q. v.), B. C. 31, the dominion of the world. He disgracefully followed Cleopatra in her flight. The army on land waited in vain for his arrival, and at last surrendered to the conqueror. Upon this, he went to Libya, where a considerable host, which he had left there, was his last hope. On his arrival, he perceived that it had embraced the party of Octavius, and his grief on the discovery was so great, that he was, with much difficulty, prevented from committing suicide. He returned to Egypt, and lived in obscurity, till Cleopatra succeeded in bringing him back to her palace and to his former mode of life. Her festivals were interrupted by the arrival of Octavius, who refused all proposals of submission. At his appearance before Alexandria, A. seemed to recover all his former courage. He marched out at the head of his cavalry, and repulsed the hostile forces; but afterwards, deserted by the Egyptian fleet and his army, and suspecting that he was betrayed by Cleopatra, he again lost his courage. He retired to the palace of the queen, in order to take vengeance upon her; she fled, however, and deceived him by a false report of her death. Resolved to die with her, he fell upon his own sword, B. C. 30. Plutarch relates, that A. commanded his slave Eros to slay him; the slave, pretending to be ready to obey, requested him to turn away his face, and then, stabbing himself, fell dead at his feet. Moved by this exhibition of heroic affection, A. threw himself upon the

same sword. On being told that Cleopatra was still alive, he caused himself to be carried into her presence, that he might die in her arms. (See *Augustus* and *Cleopatra*.)

ANTONY, Mark. (See *Antonius, Marcus*.)

ANTRAIGUES (Emanuel Louis Henry Launey), comte d'. This man, who became distinguished as a statesman during the revolution, was born in Bivarais. His tutor, the famous abbé Maury, early cultivated his talents for a splendid and captivating, though unsubstantial eloquence. He made the first public display of his talents in the renowned *Mémoire sur les Etats Généraux, leurs Droits et la Manière de les convoquer*, A. D. 1788, in which his love of liberty, extending to the entire condemnation of all despotic governments, and the justification of resistance, was expressed with such force, that, in the excitement of the age, the work was honored with the greatest applause, and may justly be regarded as one of the first sparks that lighted the flame of the French revolution. But when he was appointed deputy to the states general, in 1789, he defended the privileges of hereditary nobility, was among those who most violently opposed the intended union of the three estates, and voted for a constitution fixing the rights of man, or rather of citizens, in which he declared the veto of the king an indispensable support of monarchy. In 1790, he left the assembly, renounced his oath of citizenship, with certain limitations, was accused of disturbing the public peace, openly defended himself, and then went to Petersburg and Vienna, engaged, continually, in diplomatic business. He was now the most zealous defender of monarchy and the Bourbons. Having been sent from Russia to Italy, in 1798, he was imprisoned, by order of Bonaparte, at Milan. His wife, the renowned opera singer St. Huberti, procured for him the means of escape. He returned to Vienna, and then to Russia, where, in 1803, he was made counsellor of state by Alexander I, and sent on public business to Dresden. He wrote here a remarkable work against Napoleon—*Fragment du 18me Livre de Polybe, trouvé sur le Mont Athos*. After his return to Russia, he found means to become acquainted with the secret articles of the peace of Tilsit, went to England, and communicated them to the ministry, by which means his influence became so great, that Canning did nothing in relation to France without his advice. He maintained his diplomatic

connexions, especially in France, and was every where esteemed one of the first politicians on the stage. In spite of his attachment to the Bourbons, and his numerous struggles in their behalf, he did not succeed in gaining, entirely, the confidence of Louis XVIII. In 1812, he was murdered, in a village near London, together with his wife, by his servant Lorenzo, an Italian, who, immediately after, shot himself also.

ANTWERP (*Anvers*, French; *Amberes*, Spanish; *Antwerpen*, German and Dutch); a large, well-built capital of a province of the same name in the Netherlands, which, in 1814, was formed out of the former marquisate of A. and the lordship of Mechlin, which, under the French government, had composed the department of the two Nethes. The province contains 1017 square miles, and 287,347 inhabitants. The city lies on the Scheldt; E. lon. 4° 24'; N. lat. 51° 13'. The largest vessels can ascend the river to the wharfs of A. on 8 chief canals and 3 basins, built by the French. The city contains 60,000 inhabitants, is strongly fortified, has a citadel, more than 10,000 houses, among which is the magnificent exchange, the oldest in Europe; also the council-house, the cathedral, in which Rubens (whose family was from A.) lies buried, the ample house of the Ostrelins (the former warehouse of the Hanseatic league), &c. A. is the see of a bishop, contains an academy of sciences, an academy of painting and sculpture, a medico-surgical school, and a marine arsenal. Its manufactures of laces, sugar, white lead, litmus, cotton cloth and fine thread are very important. Its sewing-silk, black silk stuff and printers' ink are known throughout Europe. Its commerce has greatly increased since the Scheldt was once more opened; and, in 1828, 955 vessels, amongst which were 73 from America, entered this port. Before the war of the Netherlands with Spain, A. was even more important than Amsterdam, which increased very much by the decline of A., in the 16th century. At that time, the Scheldt was covered with vessels belonging to all nations, of which, at one time, 2500 lay in the harbor. An animated description of the commerce and activity of A., at that period, is given in Schiller's introduction to his *Thirty Years' War*. It then had 200,000 inhabitants, and the *Hansa*, the famous league of the Hanse towns, had numerous warehouses here. The first blow was given to its prosperity by the memorable siege under the prince of Par-

ma, in 1585, and it was entirely ruined by the closing of its harbor after the peace of Westphalia. Joseph II attempted in vain to open the Scheldt. This was not done till after the conquest of the Austrian Netherlands by the French. The Scheldt was then declared free, and commerce would soon have revived, had not Napoleon made the place a military depot. In 1814, it was besieged by the English and Saxons under Graham, and defended by Carnot, who did not surrender it till the 5th of May, after the armistice with Monsieur had been concluded. Carnot's conduct was such, that he gained the admiration of all soldiers and military connoisseurs, and the love of the people of A., though they hated the French, and suffered much from the siege. Van Dyk, both the Teniers, Seyher, Crayer, Floris and Brili were born here.

ANUBIS; one of the most distinguished deities of the Egyptians. At first, he was worshipped under the form of a dog; afterwards, under that of a man with a dog's head; hence he was termed *Cynocephalus*. Tradition calls him a son of Osiris by Nephthys, whom he mistook for Isis. When Isis was convinced of this by the lotus wreath left with Nephthys by Osiris, she sought out the child, exposed by his mother for fear of Typhon, discovered him, with the help of a dog, educated him, and found in him a faithful guard and attendant. A. guards the gods as the dog guards men. So says Plutarch. According to Diodorus, Osiris was accompanied on his expeditions by A., and Macedon, another of his sons. A. carried a helmet covered with a dog's skin, and was therefore worshipped in the form of a dog.—According to the astronomical theology of the Egyptians, he was the 7th among the 8 gods of the first class, and designated the planet Mercury, as did also *Piernies*, the more common name of the planet. He was, consequently, lord of the ascendant for an hour of the day, and genius of wisdom. His original form was derived, probably, from the worship of the dog among the Egyptians, who regarded him as the god of hunting; then he became, according to Zoega, a guardian spirit in general, a protector of the gods. The Greeks recognised in him their Hermes, with whom, therefore, he became confounded.

ANVILLE, Jean Baptiste Bourguignon d', first geographer of the king, *pensionnaire* of the academy of inscriptions and fine arts, &c., was born at Paris, in 1697. A map, which chance put into his hands,

awakened his love for geography, at the age of 12. He began to sketch regions mentioned in the Roman historians, and directed all his studies to geography. He read the ancients only to ascertain the position of cities, and to fix the limits of the remote kingdoms, of which we find traces in history. Thus he early acquired an extensive knowledge of geography, became acquainted with the learned, and, at the age of 22, received the office of geographer to the king. He now began to examine and set in order the mass of his knowledge, and acquired a nice tact, resembling instinct, which was the result of ingenious and careful comparison. Almost every where, his accuracy was rewarded by the discovery of truth. The highest estimation is due to him as a critic, and most of his opinions and conjectures have been verified by later inquiries on the spot. He has published 211 maps and plans, and 78 treatises. His atlas of ancient Egypt is the most deserving. His *Orbis Veteribus notus*, and his *Orbis Romanus*, ought to be in the hands of all who read ancient history. So, also, his maps of Gaul, Italy and Greece. His maps of the same countries for the middle ages are of equal value. His maps of modern times are as good as could be formed of the materials in his possession. He was modest and unassuming, although too irritable when censured. The natural delicacy of his constitution did not hinder him from laboring 15 hours daily. Two years before his death, his mental powers sunk beneath the infirmities of age. He died in 1782. His valuable collection of maps was purchased by the government in 1779.

AONIAN MOUNT; Parnassus (q.v.); the residence of the Muses. The name *Aonia* was sometimes given to a part of Bœotia.—*Aonides*; one of the many names given to the Muses.—*Āōnes* (ἄωνες) were a chain of mountains, of which Helicon was one.

AORTA; the great artery, which rises immediately out of the left ventricle of the heart. It is divided into two grand trunks, distinguished by the epithets *ascending* and *descending*. (See *Artery*.)

APANAGE; an allowance which the younger princes of a reigning house (in which the right of primogeniture prevails, as is now generally the case) receive from the revenues of the country, that they may be enabled to live in a manner becoming their rank. It consists mostly in money, with the use of a princely castle and hunting-grounds, attended, frequently, with the right of jurisdiction over

these domains. When it is once fixed, it passes to the descendants of the *apanaged* princes, sprung from a lawful marriage, of a suitable rank, and, in their default, commonly falls into the hands of the reigning sovereign. Sometimes it is added to the possessions of the surviving *apanaged* princes. A tract of land with the right of ruling it, set aside for an apanage, is called *paragium*.

APE. This designation, often indiscriminately applied to the members of the monkey tribe, was first properly restricted by Ray, the precursor of Linnæus, to those quadrumanous animals which, in structure, most closely approximate to the human configuration. In speaking of apes as distinguished from monkeys, we have reference to those genera of the great family *quadrumana*, which have neither tails nor cheek-pouches, attain nearly to human height, and present a facial angle, varying from 65° to 30° . The apes at present known are classed differently by different naturalists: Cuvier considers them all as species of one genus; Desmarest, whose arrangement, in this instance, we prefer, places them under the three genera, *troglydites*, *pithecus* and *pongo*, the 2d of which he divides into two sub-genera, *orangs proper*, having no gluteal callosities, and *gibbons*, or long-armed apes, having callosities. The species are, *troglydites niger*, the chimpanzee or orang-otang, which is a native of Africa, especially of the coasts of Angola and Congo; *pithecus satyrus*, the red orang, found in the most eastern parts of Southern Asia, particularly in Cochin China, Borneo and Malacca; *pithecus lar*, the great gibbon, a native of the Molucca islands, Coromandel, &c.; *pithecus leuciscus*, the *wou-wou* (so called on account of its cry), found in the same countries; *pithecus syndactylus* or *siamang*, and the *pithecus agilis* or active gibbon, both from Sumatra. As to the *pongo*, Cuvier has given excellent reasons for believing it to be nothing but the first-mentioned species in a state of maturity.—Like all the four-handed animals, the apes are destined to live among the branches of trees, and are especially adapted, from their size and strength, to occupy large forests. All of them have the power of assuming a nearly erect position, though on the ground this is by no means convenient, as they stand upon the outer edges, being unable to apply the palms of the posterior hands fairly against the soil, and require a staff, or other support, to maintain this attitude,

except when they have been taught to stand erect by man.—They generally live in troops, and some of the species are said to construct a sort of hut of leaves, as a defence against the weather. They defend themselves with clubs, and employ these weapons with considerable effect, even against the human race. They are frugivorous in a state of nature, but, from the resemblance of their teeth to those of the human species, it is very evident that their diet may be almost as various as that of man. Some of them, the gibbons, are very remarkable, from the exceeding length of their superior extremities, the arm being so long that the hands hang near the ground when the animal is in the erect position. This singular conformation serves to adapt these creatures to their situations, in a manner which would scarcely be imagined, without having been witnessed. They spend their days chiefly upon the tops and branches of lofty trees, canes and bamboos, and, in passing from one to the other, are forced to make great leaps. The advantage of their vast length of limb is then rendered evident, as the gibbons would be unable to cling with their hinder hands to a long, flexible branch, swayed in various directions by the breeze, were it not that they can maintain their position by balancing themselves with their long arms. On the loftiest branches of the gigantic eastern forest trees, troops of these animals are seen sitting balanced in perfect security, and some of the species at sunrise and sunset scream forth discordant cries from such positions. If any circumstances occur to disturb these orisons, the apes disappear with amazing celerity into the depths of the forest, springing from tree to tree, swinging themselves to great distances by their long arms, and catching as readily at the next object with the posterior hands. The orangs of Borneo attain to the greatest size, growing to be five or six feet high; and travellers speak of apes of a still larger size. They are represented, with justice, as terrible animals, and are endowed with unexampled strength of limb, one adult ape being more than a match for several unarmed men. They cause much terror to the natives residing near their haunts, and commit great ravages among the plantations of fruit, &c.—The orang most frequently exhibited and closely observed in captivity is the chimpanzee, jocko or wild man of the woods, commonly called *orang-otang* (*S. troglodytes*, L.) This species is an inhabitant

of Africa, and especially of the coasts of Congo and Angola. In the proportions of its members, and form of the head, it most closely resembles the human kind. It is a very amusing, though, at the same time, an unproductive employment, to read the monstrous exaggerations and ridiculous fables, which have been written of this animal by various learned authors. As they are always obtained when very young, they are trained to the performance of actions, which their exhibitors afterwards are careful to say have been acquired by voluntary imitation. It is, however, only after long and painful discipline that this education is effected; and, this once terminated, they advance no farther. They never exhibit as much sagacity as is shown by a good dog, nor are they capable of an equal degree of improvement. As they advance in life, they become untractable and savage, and, if Cuvier's opinion be confirmed, that the pongo of Africa is this orang-outang in a state of maturity, they become, with age, the most terrible and indomitable of their whole race. Lascivious, filthy, gluttonous and ferocious, they offer to man a perfect picture of what he would be, were he, like them, destitute of the divine faculty of reason, which controls the brute impulses of his organization. In their native haunts, these animals manifest differences sufficiently striking, in their habits and modes of life, to render them interesting objects of contemplation. Some of the species are remarkable for great activity; others are sluggish, indolent and inert. The females manifest an ardent attachment to their offspring, and make vigorous efforts to save them from injury. All show various degrees of that restless mobility, which indicates how much they are under the exclusive influence of sensation, without appearing to form conclusions from their repeated experience. An ape, in captivity, on seeing his image in a mirror, will look behind it to discover the animal reflected; and will as eagerly perform this action after the thousandth repetition as the first.—Our limits will not permit us to enter more particularly into this subject; but the curious reader will find in the works of F. Cuvier details sufficiently ample to satisfy the most inquisitive spirit.

A-PEAK (*à pique*, Fr.); perpendicular to the anchor. A ship is said to be in this situation, when the cable is drawn so tight into the bow as to bring her directly over the anchor, so that the cable bears right down from the ship's stem.

APELLES, the most famous of the ancient portrait-painters, was the son of Pythias; probably born at Colophon. At Ephesus, he received the rights of citizenship, and therefore is called, sometimes, the *Ephesian*. Ephorus of Ephesus was his first teacher, but, attracted by the renown of the Sicyonian school, which distinguished itself by exact study, he became the disciple of Pamphilus, in Sicyon, though already himself an artist of reputation. Here he executed, with some other pupils of the same master, different paintings, which, for a long time, enjoyed great fame. In the time of Philip, A. went to Macedonia, and there, probably, the friendship and familiar intercourse between him and the king were established, which have given origin to so many anecdotes. But many of these may relate to a meeting with Alexander in Ephesus, where A. had gone, after a short stay at Rhodes, Cos and Alexandria. While staying at Rhodes, being in the study of Protogenes, during the absence of the latter, he drew a sketch, in which Protogenes, on his return, recognised the masterly stroke of A., and undertook to excel him. A. returned, and drew a third sketch, superior to both, so that the Rhodian painter declared himself conquered. The table containing the figures was afterwards brought to Rome, and ornamented the palace of the Cæsars, till destroyed in a conflagration. The most celebrated painting of this artist—*Alexander holding the lightning*, from which the chief light of the picture proceeds—stood in the temple of Ephesus. By a happy application of perspective and *chiaro-oscuro*, the hand with the lightning seemed to project from the picture.—The talent and renown of A. were at their height in the 112th Olympiad. Yet, after the death of Alexander, he several times painted king Antiochus. This must have happened in the 118th Olympiad. Death seems to have surprised the artist in Cos, where an unfinished Venus was shown as his work, which nobody dared to complete. But the story that A., at the court of Ptolemy, at Alexandria, was accused, by the painter Antiphris, of being engaged in a conspiracy, and that, his innocence being proved, he took revenge on the king and his rival, by a picture of Calumny, must refer to another artist of the same name. Tölken, professor at the university of Berlin, in his lecture, *Apelles and Antiphris*, in vol. iii. of *Amalthea*, has proved that this Apelles lived between the

Olympiads 139 and 144, consequently 100 years later than the contemporary of Alexander. The greatest merit of A. was inimitable grace; his works were full of life, grace and poetry, and his art, therefore, was justly called *ars Apellea*.—According to Pliny, A. generally painted with four colors only, which he made to harmonize by means of the varnish, which he himself had invented.

APENNINES, or APPENNINES; a chain of mountains beginning near the Maritime Alps, not far from Genoa, there forming the pass of Bocchetta, extending through all Italy to the shores of Otranto and the straits of Sicily, and dividing it into two nearly equal parts, eastern and western. The Apennines are covered to the top with trees, particularly chestnut-trees, the fruit of which, in some countries, is the principal food of the inhabitants. Lower than the Alps, the Apennines present only a few elevated summits; e. g., the Gran Sasso, at Aquila, in the province of Abruzzo, 8255 feet high, and the Velino, 7872 feet high. The Apennines are covered with snow in winter, which sometimes melts late, and, congealing, forms ice, indispensable in a warm climate like Italy. In the Apennines are some large valleys, a few lakes and rivers, and many marshes at the foot of the hills. The internal construction of the chain shows great uniformity, the prevailing mineral, a thick, white limestone, being found in the same position in many places. The northern part deviates from this formation where it unites with the Alps, as well as the extreme south: both exhibit a great variety of elder formations. The lower elevations between the plain and the central chain display considerable diversity of construction. Primitive formations are wanting entirely in the next range of heights. In the highest of all, they are not abundant. Yet in the southern part, granite, gneiss and mica-slate are considerably diffused. The transition rocks, however, are widely spread, and abundant in various parts of the chain; e. g., gray wacke, clay-slate, limestone (e. g., the Carrara marble) and gabbro. Very widely diffused, also, is the compact floetz limestone, known under the name of *Apennine limestone*, which probably belongs to the limestone formation of the Jura. These mountains also are rich in recent formations, and in the volcanic *tuffs*, which is an aggregate of volcanic substances transported and deposited by water. Proper volcanic and trapp formations, as they are called, are for-

eign to the principal chain of the Apennines. These are confined to the south-eastern part of Italy. Only Vesuvius, the extinct volcanoes of Nemi and Albano, and the lava stream of Borghetto, approach the borders of the chain.

APHELION (Greek, ἀπὸ, from, and ἥλιος, the sun); that part of the orbit of the earth, or any other planet, in which it is at the point remotest from the sun. This also applies to a satellite; for the moon has her aphelion as well as the planets.

APHRODITE; the goddess of love among the Greeks; synonymous with *Aphroge-neia*, that is, *born of the foam of the sea*.—*Aphrodisia*; a festival sacred to Venus, which was celebrated in various parts of Greece, but with the greatest solemnity in the island of Cyprus. (See *Venus*.)

APICIUS, M. Gabius; an epicure in the time of Augustus and Tiberius. He had the most delicate table in Rome, proved his genius for cookery by the invention of new dishes, and at last, when he had exhausted his vast fortune, he poisoned himself, that he might not die with hunger.—There were two other notorious epicures of the same name at Rome. The book of cookery, however, *De Arte Coquinaria*, published under the name of Apicius, was written by one Caelius, who assumed the proverbial nickname *Apicius*. The latest edition was by Bernhold, Anspach, 1806.

APIS; a bull, to which divine honors were paid by the Egyptians, chiefly at Memphis. According to the belief of the people, a cow became pregnant of him by a beam of light from heaven, coming particularly from the moon. It was necessary that he should be black, with a triangle of white on the forehead, a white spot, in the form of a crescent, on the right side, and a sort of knot, like a beetle, under his tongue. When a bull of this description was found, he was fed 4 months in a building facing the east. At the new moon, he was led to a splendid ship, with great solemnity, and conveyed to Heliopolis, where he was fed 40 days more by priests and women, who performed before him various indecent ceremonies. After this, no one was suffered to approach him. From Heliopolis the priests carried him to Memphis, where he had a temple, two chapels to dwell in, and a large court for exercise. He had the gift of prophecy, which he imparted to the children about him. The omen is good or bad, according as he goes into one chapel or the other. His birth-day was celebrated every year; when the Nile

began to rise, the festival continued for 7 days; a golden shell was thrown into the Nile, and the crocodile was always tame as long as the feast continued. Notwithstanding all this veneration, the bull was not suffered to live beyond 25 years; the reason of which is probably to be found in the astronomical theology of the Egyptians. He was buried in a fountain. Belzoni thought he had discovered a tomb of Apis in one of the stone sepulchres among the mountains of Upper Egypt, which enclose the valley of tombs, or the gates of the kings. In the same place, he found a colossal sarcophagus of alabaster, transparent and sonorous (now in the British museum), ornamented within and without by carved hieroglyphics and figures. In the interior of the apartment was found the body of a bull, embalmed with asphaltum. The death of Apis excited universal mourning, which continued till the priests had found a successor to him. As it was extremely difficult to find one with all the above distinctions, fraud was often practised by the priests.

APOCALYPSE (*Greek*; from ἀποκαλύπτω, I reveal); the name of the last book of the New Testament, containing an account of the visions of St. John the evangelist. It is generally, at least, believed, that the Apocalypse was written by John, in his old age, at the end of the 1st century, in the isle of Patmos, whither he had been banished by the Roman emperor Domitian. Though the book was commonly regarded as genuine in the first centuries of Christianity, critics have not been wanting, who have doubted the evidence of its being the work of St. John. Its genuineness seems to have been first questioned in the 3d century, and, whether it be genuine or not, it still remains a question, whether it is the work of divine inspiration. However this may be, so much is certain, that the Apocalypse, on account of its metaphorical language, has been explained differently by almost every writer who has ventured to interpret it; and, for the same reason, it is one of those parts of the Bible which has furnished all sorts of sects and fanatics with quotations to support their creeds or pretensions. Even at the present time, people who have no clear and simple views of religion, but make it a mere matter of feeling and passion, refer more to this mysterious book, and to some parts of the Old Testament, than to the Gospels, and the other comparatively intelligible portions of the Scriptures. In the meta-

phors and symbolical expressions with which the Apocalypse abounds, the author seems to have had in view the then existing state of the church of Christ, and its future prospects. He speaks of his vision as of a matter of fact, with a confidence resembling that of Dante; but though the language is often bold and poetical, yet it is evident that the mind of the author had been formed among Jews, whose history shows them to have been always deficient in sensibility for the beautiful. The Apocalypse contains 22 chapters, which may be divided into two principal parts. The first, after the title of the book (ch. i. 1—3.), comprises “the things which are,” that is, the then present state of the Christian church, including the epistolary instructions and admonitions to the angels or bishops of the 7 churches of Ephesus, Smyrna, Pergamos, Thyatira, Sardis and Laodicea, situated in Asia Minor. The second part comprehends a prediction of “the things which shall be hereafter,” referring either to the future state of the church through succeeding ages, from the time when the apostle beheld the apocalyptic visions, to the grand consummation of all things, or the state of the souls of men after the great resurrection of the dead. The millennium, which is spoken of in the Apocalypse, has, at different times, seduced people into the strangest expectations respecting the end of the world, particularly in the earlier times of Christianity; nay, the expectation of a speedy destruction of the world appears to have been an idea of the apostles themselves, based on a misinterpretation of the assurance of Christ, that he would soon return, connected with the idea, that the only object of his return must be to judge the living and the dead.

APOCRYPHAL (*Greek*; concealed); an epithet generally applied to certain books not admitted into the canon of the Old Testament; being either spurious, or not acknowledged as of divine origin. They are opposed to the *canonical writings*, i. e. those which are considered as affording rules of faith and conduct, because a divine origin is attributed to them. Besides the apocryphal books of the Old Testament, which usually stand after the canonical books in our editions, there are numerous spurious books, composed in the early days of Christianity, and published under the names of Jesus Christ and his apostles, their companions, &c. These bear the names of *Acts, Epistles, Revelations*, &c. They are entirely destitute of

evidence to justify their admission into the sacred canon, and, on this account, are omitted entirely. They may be found in the *Cod. Apocryph.* by Fabricius, (Hamburg, 1719, 2 vols.) There are also several books of the New Testament, in the common editions, which, though generally regarded as canonical, are by some deemed apocryphal; e. g., the Revelation of St. John. (See *Apocalypse*.)

APOGEE (*Greek*; from *ἀνα*, from, and *γῆ*, the earth); that point in the orbit of the sun, or of a planet, which is at the greatest distance possible from the earth. The point of greatest nearness is called the *perigee*. The ancient astronomers, regarding the earth as the centre of the system, paid particular attention to these points, which the moderns, making the sun the centre, change for the *aphelion* and *perihelion*.

APOLLINARIANS, in ecclesiastical history; a sect which maintained the doctrine that the Logos (the Word of God) holds in Christ the place of the rational soul, and consequently that God was united in him with the human body and the sensitive soul. Apollinaris, the author of this opinion, was, from A. D. 362 till at least A. D. 382, bishop of Laodicea, in Syria, and a zealous opposer of the Arians. As a man and a scholar, he was highly esteemed, and was among the most popular authors of his time. According to the old historians of the church, when the emperor Julian forbade Christians the use of schools and the study of the Greek classics, Apollinaris, with his father, of the same name, a teacher of languages, and a presbyter, composed imitations of them, for the use of the Christians; for instance, heroic poems and tragedies, from the historical matter of the Old Testament, and dialogues in imitation of Plato's, from portions of the New. None of these works are now extant. His doctrine above-mentioned was first made known A. D. 371, and has been condemned as heretical, since A. D. 375, by various councils; among others, by the ecumenical council at Constantinople, A. D. 381. Apollinaris, however, formed a congregation of his adherents at Antioch, and made Vitalis their bishop. The *Apollinarians*, or *Vitalians*, as the followers of Apollinaris and Vitalis were called, soon spread their sentiments in Syria and the neighboring countries, established several societies, with their own bishops, and one even in Constantinople; but, after the death of their leader, between A. D. 382 and A. D. 392, they

separated into two parties—one, the Valentinians, who adhered to the doctrine of Apollinaris; the other, the Polemians, who assert that God and the body of Christ became one substance, and who, consequently, pay divine honors to the flesh; for which reason they were called *Sarcolatæ*, *Anthropolatæ*, and, because they admit the union of both natures in Christ, *Synusians*. Imperial edicts, A. D. 388 and 397, forbade them to hold religious assemblies; and, A. D. 428, they were wholly forbidden to have ecclesiastics, or to dwell in cities. This sect, never numerous, now disappeared, being partly included among the orthodox, and partly, afterwards, among the Monophysites. The doctrine of transubstantiation, and divine honor to the consecrated host, arises from the same view, which the Catholics deemed a crime in the Polemians.

APOLLO; son of Jupiter and Latona, who, being persecuted by the jealousy of Juno, after tedious wanderings and nine days' labor, was delivered of him and his twin sister, Artemis (Diana), on the island of Delos. (q. v.) A. appears in mythology as the god of poetry, music and prophecy, the patron of physicians, shepherds and the founders of cities. Skilled in the use of the bow, he slew the serpent Python on the fifth day after his birth; afterwards, with his sister Diana, he killed the children of Niobe, &c. He aided Jupiter in the war with the Titans and the giants. He destroyed the Cyclops, because they forged the thunderbolts with which Jupiter killed his son and favorite Æsculapius. All of the male sex who were snatched from the world by a sudden and easy death, without previous sickness, were supposed to be smitten by the arrows of A. In the oldest poems, A. is exhibited as the god of song. In the festivals of the gods on Olympus, and those of men in which they took part, he plays and sings, while the Muses dance around him. He invented the harp or lyre. Marsyas, who ventured to contend with him on the flute, was conquered and flayed alive by the god. A. had another contest with Pan, in which the former played on the lyre, the latter on the pipe. Tmolus had already decided in favor of A., when Midas opposed the sentence, and was decorated with a pair of ass's ears for his insolence. That A. had the gift of prophecy, appears from the Iliad, where he is said to have bestowed it upon Calchas; and, in the Odyssey, mention is made of an oracular response, delivered

by him in Delphi. (q. v.) The oracle of A. at this place became very famous. He also revealed future events at Didyma, Claros, Tenedos and Patara. As medical advice was sought chiefly from oracles and soothsayers, A., in later times, came to be regarded as the god of physic. He was called the *father of Æsculapius*, and poets feigned that he taught the Asclepiades the art of healing. Fables about the pastoral life of A. were not unknown in Homer's time, and Callimachus mentions him among the gods of shepherds. He is reported to have taken charge, for a long time, of the herds of Admetus, according to some authorities, voluntarily, according to others, compelled by Jupiter, on account of the murder of the Cyclops, or the serpent Python. As a builder of cities, the founding of Cyzicum, Cyrene and Naxos in Sicily, is ascribed to him. Homer relates that he built the walls of Troy together with Neptune, and afflicted the city afterwards with a pestilence, because Laomedon defrauded him of his pay. According to Pausanias, he assisted in building the walls of Megara; at which time he laid down his lute upon a stone, which ever after sent forth the music of the lute, as often as it was touched. According to the descriptions of poets, and the representations of sculptors, A. with Mars, Mercury and Bacchus, belongs to the beardless gods, in whom the dawnings of early manhood appear. His attributes are a bow, a quiver and plectrum, a serpent, a shepherd's crook, a griffin and a swan, a tripod, a laurel, an olive-tree, &c. Mythology relates many of his amours. (See *Daphne*.) In later times, he was confounded with Helios, among the Romans, Sol, the sun. Besides many temples, the island Delos, the city Delphi, mount Helicon, Leucadia and Parnassus were sacred to him.—The *Apollinaria* were games, celebrated in honor of him at Rome, which consisted of bull-fights, theatrical shows, and athletic exercises. He is often called *Phæbus*, both by Greeks and Romans. Among the ancient statues of A. that have come down to us, the most remarkable, and, in the judgment of the learned and acute Winckelmann, the best and most perfect that art has produced, is the one called the *Apollo Belvidere*, from the pavilion of Belvidere in the Vatican, at Rome; also called the *Pythian Apollo*, because it is supposed that the artist has represented the god as the conqueror of the serpent Python. This statue was found in the ruins of Antium, at the end

of the 15th century. On the peace of Tolentino, 1797, it was carried to Paris, with other treasures of art, whence it was restored to Rome, 1815.

APOLLODORUS; son of Asclepiades; an Athenian grammarian, who flourished about 140 B. C.; studied philosophy under Panætius, and grammar, in the ancient sense of the word, under Aristarchus. He wrote a work on the gods, a commentary on Homer's catalogue of ships, and a history in verse. The mythological work entitled *Bibliotheca*, which bears his name, is probably a later extract from the larger work of A. It is very closely connected, however, with his history of the gods and heroes. The best editions are Heyne's, 2d edition, Göttingen, 1803, 2 vols., and Clavier's, Paris, 1805, 2 vols., with a French translation.—A. is also the name of a distinguished architect, who built the *forum Trajani*.

APOLLODORUS of Athens; a distinguished painter, about 408 B. C. (See *Painting*.)

APOLLONIKON; a large hand-organ, completed, in 1817, by Flight and Robson, organ-builders, which, however, may be played by the aid of keys, of which there are five rows arranged together in such manner that several musicians may perform at the same time. It is said to resemble the panharmonicon of Maelzel, and is calculated to produce a powerful effect, which is greatly enhanced by the variety of its stops. Prior to this, Roeller, an instrument-maker, born in Hesse-Darmstadt, had invented an instrument with two rows of keys, which might be played as a piano-forte and as a chamber-organ, combined at the same time with a musical automaton. It is described in the 2d vol. of the *Leipsic Musical Journal*. This instrument was called the *apollonion*.

APOLLONIUS of Perga, in Pamphylia; one of four authors (Euclid, Archimedes, Apollonius and Diophantes) whom we must regard as the founders of mathematical science. He lived about 240 B. C., and studied mathematics at Alexandria, among the scholars of Euclid. The most renowned of his numerous mathematical works is a book on *Conic Sections* (Oxford ed., 1710, fol.), a branch of the science to which he added much by new inventions and happy explanations.—A. of Rhodes, according to some authorities, was born at Alexandria, according to others, at Naucratis, about 230 B. C. As the jealousy of other learned men incessantly persecuted him in his own country,

he retired to Rhodes, where he taught rhetoric with so much reputation, and obtained, by his writings, so much fame, that the Rhodians bestowed upon him the rights of citizenship. He returned to Alexandria to succeed Eratosthenes, as superintendent of the library of that city. Of his various works, we have only the *Argonautica*, a poem of moderate merit, though written with much care and labor. There are some passages, however, of great beauty, especially the episode on the love of Medea. The best editions are those of Brunck, Strassb. 1780, Leipsic, 1810, and that of 1813, with notes, &c.; the latter is not yet completed. (See Weichert *On the Life and Poetry of Apollonius*, Meissen, 1821.)—A. of Tyana, in Cappadocia, was born in the beginning of the Christian æra, and became a follower of the Pythagorean philosophy. Euthydemus, the Phœnician, instructed him in grammar, rhetoric, and the various philosophical systems, and Euxenus of Heraclea taught him the Pythagorean philosophy. A. felt an irresistible desire to become a disciple of Pythagoras, according to the rigid rules of his sect. At Ægæ, there was a temple consecrated to Æsculapius, where this god wrought miracles for the cure of the sick. To this temple A. repaired. In obedience to the precepts of Pythagoras, he abstained from all animal food, and lived only on fruits and herbs, drank no wine, dressed in a stuff prepared from plants, went barefooted, and suffered his hair to grow. The priests of the temple instructed him, and initiated him into their mysteries. It is said that Æsculapius himself made him a witness of his cures; yet we have never been told that he had then attempted to perform miracles. He established a philosophical school, and enjoined silence upon himself for five years. During this time, he visited Pamphylia and Cilicia, and, afterwards, Antioch, Ephesus, and other cities. He then determined to pass beyond Babylon, to India, in order to become acquainted with the doctrines of the Bramins; and, as his scholars refused to follow him, he began his journey alone. A certain Damis, who met him, and regarded him as a deity, was his companion, and the narrator of his travels. At Babylon, he conversed with the Magi, and departed thence, with rich presents, on his way to Taxella, where Phraortes, king of India, had his seat of government, who gave him letters of introduction to the first among the Bramins. After 4 months, A. returned to Babylon,

from whence he proceeded to Ionia, and visited several cities. His fame every where preceded him, and the people came forth eagerly to meet him. He publicly reproached them for their indolence, and recommended community of goods, according to the doctrines of Pythagoras. He prophesied pestilence and earthquakes at Ephesus, which afterwards really came to pass. He spent one night in solitude at the grave of Achilles, and pretended to have had a conversation with the shade of that hero. At Lesbos, he conversed with the priests of Orpheus, who, at first, refused to initiate him into the sacred mysteries, regarding him as a sorcerer; but they received him some years later. At Athens, he recommended to the people sacrifices, prayers, and reformation of their morals. In every place which he visited, he maintained that he could prophesy and perform miracles. At last he came to Rome. Nero had, just before, banished all the magicians from the city. A. felt that he might be arrested in consequence of this edict: this reflection, however, did not prevent him from entering the city, with 8 of his companions; but his stay was short. He raised a young lady from the dead, says a historian, and was expelled from the city. He then visited Spain, returned through Italy to Greece, and thence to Egypt, where Vespasian made use of him for the support of his authority, and asked advice of him as of an oracle. Thence he journeyed to Ethiopia, and, after his return, was received as favorably by Titus, who asked his advice in all the affairs of government. When Domitian ascended the throne, A. was accused of having excited an insurrection in Egypt, in favor of Nerva. He readily submitted to a trial, and was acquitted. After this, he went once more to Greece, and passed over to Ephesus, where he opened a Pythagorean school, and died, almost 100 years old. Among the many miracles related of him, he is said to have announced the murder of Domitian, at the very moment when it happened. The heathens compare him to Christ, as a worker of miracles. Flavius Philostratus wrote a history of his life, very favorable to him, in 8 parts.

APOLOGETICS. A great number of apologies were written in defence of Christianity, in the early ages of the church, by Justin and others, but apologetics did not form a separate branch of theological science till the 18th century. We understand by them a philosophical exhibition of the arguments for the divine origin of

Christianity. They are to be carefully distinguished from polemical writings, which have for their object only to maintain the peculiarities of one religious sect or party against another. Hugo Grotius is one of the most eminent among the writers of these works. The *Génie du Christianisme* of Chateaubriand is a superficial declamation, with little merit but that of elegance. One of the principal apologetic works of modern times is in Danish—*Kristelig Apologetik, eller Videnskabelig Udvikling af Grundene for Kristendommens Guddommelighed*, ved P. E. Müller (Christian Apologetics, or philosophical Arguments for the divine Origin of Christianity), Copenhagen, 1810.

APOLOGUE. (See *Fable*.)

APOLOGY; defence of one who is accused. Judicial trials, among the ancients, were public, as they are in England and America, and consisted of speeches for and against a person or cause, and of the examination of witnesses. From judicial defences, which were often written down during the trial, and frequently composed accurately, and committed to paper by the speakers themselves, and afterwards made public, arose apologies. Of this nature are the apologies of Socrates, attributed to Plato and Xenophon. The former is a labored speech, in which Socrates is introduced speaking himself; the latter, rather a narration of the last hours and words of the wise man, with an explanation of the reasons why he preferred death, by which he seemed elevated above his accusers more than he would have been by a formal defence, which he scorned to make. Later rhetoricians wrote upon the use of apologies, and caused them to be composed by their scholars. Of this sort are the Apologies of Libanius (in 4 parts, the Reiske edition). Thus the name passed over to Christian authors, who, having before been orators or philosophers, borrowed a great part of their technical terms from the public courts of justice. They gave the name of *apologies* to the writings which were designed to defend Christianity against the attacks and accusations of its enemies, particularly the pagan philosophers, and to justify its professors before the emperors. Of this sort were those by Justin Martyr, Athenagoras, Tertullian, Tatian and others, which are lost, written by Quadratus, Aristides, Melito, Miltiades, Theophilus. To these might be added several works of Origen, Clement of Alexandria, Eusebius; and, among the Latins, those of Lactantius, Arnobius, Minucius Felix and

Augustin, though they are published under another title. We must not expect in them strict philosophical connexion, nor the accurate interpretation of the sacred writings. It must be remembered, that most of the authors, part of whom had belonged to the profession of advocates, made use of all the arts of eloquence, that were permitted in public courts. After the secure establishment of Christianity, such apologies, in a great measure, ceased to appear, till, in later times, several writers have again attacked it, either directly or by indirect insinuation. In consequence, new apologies have been written, and, among many weak ones, some exhibit great power and eloquence. There are, also, apologies for the doctrines of particular sects; e. g., Robert Barclay's Apology for the People in Scorn called *Quakers*.

ARONO, Peter, one of the most celebrated physicians of the 13th century, was born at Apono, or Abano, a village near Padua, in 1250. He studied at the university of Paris. His reputation as a physician became so great, that his rivals, envious of his celebrity, gave out that he was aided in his cures by evil spirits, and brought him under the notice of the inquisition, but he died before his process was finished. His body would have been consigned to the flames, but for the attachment of a female domestic, who had it privately disinterred, and secretly re-buried. His memory received honors more than equal to this attempted disgrace, for the duke of Urbino and the senate of Padua afterwards erected statues to him. Besides the work, *Conciliator Differentiarum Philosophorum, et præcipue Medicorum*, which he composed in Paris, and which was published at Padua, in 1490, and reprinted at Florence and at Venice, this author wrote *De Venenis eorumque Remediis*, Marburg, 1517, and Venice, 1550; *De Medicina Omnimoda*; *Quæstiones de Febris*; and various other works.

APOPHTHEGM (from the Greek ἀποφθεγμα); a short, pithy sentence, or maxim, as, for example, the sayings of the *seven wise men*, so called. Julius Cæsar wrote a collection of them, but history has not handed them down to us. Several modern writers have written such apophthegms, in prose and verse. Some parts of the Bible are entirely composed of apophthegms.

APOPLEXY is the name applied to a disease which occurs very suddenly, as if a blow had been inflicted upon the head, and deprives the person of consciousness and voluntary motion, while

the respiration and action of the heart continue, although much oppressed. In a complete apoplexy, the person falls suddenly, is unable to move his limbs or to speak, gives no proof of seeing, hearing or feeling, and the breathing is stertorous or snoring, like that of a person in deep sleep. In a case of less violence, the symptoms are more moderate. Consciousness sometimes remains in part; some power of motion is retained, upon one side, or in some parts, at least; the speech is not entirely lost, but is only an unintelligible muttering of incoherent words. The immediate cause of this disease is some affection or injury of the brain, or of some portion of it; and it is most commonly produced by a fulness of blood in the head, either remaining in the blood-vessels, or poured out, in or upon the brain, from their rupture in some part, and in sufficient quantity to exert considerable pressure upon that organ. As the state of the whole body depends much upon the sound condition of the brain and nerves, it is evident that such an unnatural state of these organs cannot continue long without danger to life. The termination and effects of the disease vary with the violence of the attack; and it is either fatal in a few hours, or after a few days, during which a degree of fever is often observed, or the patient recovers, entirely or with a weakness or lameness of one or more limbs. The immediate cause of the symptoms first occurring, and of those remotely subsequent, is not known with absolute certainty; but from the examination of the bodies of those who have died with this disease, or in whom death has been produced by mechanical injuries to the head, which have been attended by similar appearances; and from the entire similarity of the symptoms in persons whose brains are injured by the pressure of bones, or blood, or in whom the brain exposed by some wound is purposely compressed, &c., to the symptoms presented by apoplexy; there is scarcely room to doubt, that genuine, complete apoplexy is produced by the pressure of blood (whether extravasated or not) upon the brain. This arises from the destruction of the equilibrium or balance of the circulation by various causes, by which an unnatural quantity of blood is forced into an otherwise healthy brain, or the brain and its vessels so weakened, that they are unable to sustain the pressure of the usual quantity of blood. Some of these causes operate directly upon the brain, as strong passions, hard study, exhaustion from fatigue, &c.;

others, indirectly, through the medium of the stomach, as when this disease is produced by indigestible food, &c. The disposition to it is sometimes hereditary and is most usually found to accompany a short, full person, a short neck, and a system disposed to a too copious sanguification. It sometimes, also, occurs in people who are exhausted by old age, excessive labor or anxiety, and, in these cases, the brain seems to be too weak to perform its common functions, and the efforts required of it produce an injurious or destructive flow of blood to it. It will be readily conjectured, from what has been said, that the cure of this disease is by no means easy, as the treatment must be accommodated to the various causes which may have produced it. It is at all times a disease of great danger, but by no means always fatal; and those affected by it sometimes recover as entirely as from any other complaint, although some lameness or defect of motion is apt to remain, either in the limbs, the organs of speech, the eyes or mouth, or some other part. A fatal result is to be anticipated, when the consciousness and feeling are entirely lost; when the eye is insensible to light, and the pupil does not contract; when the patient cannot swallow, the respiration grows more laborious, and froth or blood appears at the mouth or nose. But if, on the contrary, the remedies used appear to afford relief, and produce a gradual diminution of the symptoms above described, a favorable result may be expected. Although an attack of apoplexy comes on, for the most part, suddenly and unexpectedly, yet it is often preceded by appearances, which give warning of its approach. These are a high color of the whole face, giddiness or vertigo, sparks or flashes of light before the eyes, noises in the ears, bleeding at the nose, and pain in the head. The danger, in such cases, may most commonly be averted by bleeding and abstemious diet, to be continued till these symptoms are removed. When a person is unfortunately attacked by apoplexy, the first step should be to open the cravat and collar, so as to leave the neck free: if it be a short time after a meal, or if the last meal has been of an indigestible character, the stomach should be emptied by an emetic, or by tickling the throat with the finger, without waiting for a physician, and, at the same time, a vein or two should be opened, so as to produce a free flow of blood, which should be continued, if the face is flushed and red,

till relief is obtained. Subsequent treatment will of course be directed by a medical attendant. Great care should be taken, in such cases, that no attempt is made to arouse the person by rubbing, or any sort of stimulation, internal or external, as these can only do harm. Paralysis, or palsy, is sometimes a consequence of apoplexy, but it is more commonly produced by causes of a different character, and constitutes a different disease. (See *Palsy*.)

APOSTASY (from Greek ἀπό and ἵσταμαι, I keep myself far); a renunciation of opinions or practices, and the adoption of contrary ones, usually applied to one who has forsaken his religion. It is always an expression of reproach. What one party calls *apostasy* is termed by the other *conversion*. History mentions three eminent apostates—Julian the Apostate, who had never been a Christian, except nominally, and by compulsion; Henry IV, king of France, who thought that *Paris vaut bien une messe*, and that, of course, all France was worth the whole Catholic faith; and William of Nassau, the stadtholder, who separated himself from the Catholic church, and became a Protestant, according to the faith of his father, which, in fact, had always been secretly his own. One day, Henry IV, standing with the marshal Joyeuse on a balcony, seeing many people looking at him, said, *Mon cousin, ces gens-là me paraissent fort aises de voir ensemble un apostat et un renégat*. General Bonneval, a Frenchman, was a famous apostate. He became a Turkish pacha. Generally, apostates, religious or political, are violent partisans. Catholics, also, call those persons apostates, who forsake a religious order, or renounce their religious vows without a lawful dispensation. The apostasy of a Christian to Judaism or paganism was punished, by the emperors Constantius and Julian, with confiscation of goods; to which the emperors Theodosius and Valentinian added capital punishment in case of the apostate's perverting others. Also, in ancient England, it is said that apostasy was punishable by burning, and tearing to pieces by horses. Statutes 9 and 10 of William III, c. 32, also provide that, if any person, educated in, or having made profession of the Christian religion, shall deny it to be true, he shall be rendered incapable of holding any office for the first offence, and, for the second, shall be made incapable of bringing any action, of being guardian, executor, legatee or purchaser of lands, and shall suffer three

years' imprisonment without bail. The punishment of the first offence, however, will be remitted in case the delinquent, within 4 months after conviction, publicly renounces his error in open court. Penal laws of this sort, relating to religion, have generally lain dormant in England.

A POSTERIORI. (See *A priori*.)

APOSTLES; such as are sent; (from the Greek ἀποστέλλειν, to send); in the Christian church, the 12 men whom Jesus selected from his disciples as the best instructed in his doctrines, and the fittest instruments for the promulgation of his religion. Hence they were regarded as the ambassadors of Jesus to the rest of the world. (*Matt.* ch. xxviii. ver. 19.) Their names were as follows:—Simon Peter (Greek for *Caiaphas*, the rock), and Andrew his brother; James the greater, and John his brother, who were sons of Zebedee; Philip of Bethsaida, Bartholomew, Thomas, Matthew; James the son of Alphaeus, commonly called *James the less*; Lebbeus, his brother, who was surnamed *Thaddeus*, and was called *Judas*, or *Jude*; Simon the Canaanite, and Judas Iscariot. Of this number, Simon Peter, John, James the greater and Andrew were fishermen; and Matthew, a publican or tax-gatherer. When the apostles were reduced to 11 by the suicide of Judas, who had betrayed Christ, they chose Matthias by lot, on the proposition of St. Peter. Soon after, their number became 13, by the miraculous vocation of Saul, who, under the name of *Paul*, became one of the most zealous propagators of the Christian faith. The Bible gives the name of *apostle* to Barnabas also, who accompanied Paul on his missions (*Acts of the Ap.* ch. xiv. ver. 13), and Paul bestows it also on Andronicus and Junia, his relations, and companions in prison. Generally, however, the name is used, in a narrower sense, to designate those whom Christ selected himself while on earth, and Paul, whom he afterwards called. In a wider sense, those preachers who first taught Christianity in heathen countries, are sometimes termed *apostles*; e. g., St. Denis, the A. of the Gauls; St. Boniface, the A. of Germany; the monk Augustin, the A. of England; the Jesuit Francis Xavier, the A. of the Indies; Adalbert of Prague, A. of Prussia Proper. Paul was the only A. who had received a scientific education; the others were mechanics. Peter, Andrew and John are called in the scripture (*Acts*, ch. iv. ver. 13), *homines sine literis, idiotæ*. Questions have often been started respecting the

domestic circumstances of the apostles. Were they very poor? Were they married? &c. Our information on these points is very limited. Some eminent theologians have thought that Christ was not poor, and that the apostles had a common fund sufficient to meet many expenses, of which some indications exist. Tradition reports that several of the apostles were married. The wife of St. Peter is said to have accompanied him on his journeys, and died a martyr. The tradition further states, that Peter had a daughter, Petronilla, who was also a martyr; thus, at least, say St. Augustin, St. Epiphanius and St. Clement of Alexandria. St. Philip, also, is said to have been married, and to have had several daughters, among whom was St. Hermione. Hegesippus speaks of 2 martyrs, grandsons of Jude. His wife was called *Mary*. St. Bartholomew is also said to have been married. But tradition affords almost our only authority respecting their private lives. During the life of the Savior, the apostles more than once showed a misunderstanding of the object of his mission, and, during his sufferings, evinced little courage and firmness of friendship for their great and benevolent Teacher. After his death, they received the Holy Ghost on the day of Pentecost, that they might be enabled to fulfil the important duties for which they had been chosen. Their subsequent lives the Catholic church represents as follows, partly on the authority of the book of Acts, mostly on that of tradition:—St. John made some excursions into Asia, and preached among the Parthians, and in India. In the reign of Domitian, he was carried to Rome, tortured, and exiled to Patmos, where he wrote the Apocalypse. He died in Ephesus. St. Bartholomew travelled through India, Persia, Abyssinia, Arabia Felix, and finished his course in Armenia. St. Philip preached in Phrygia; St. Thomas in Media, Caramania, Bactria, in India, and even in China; but this last fact is not positively asserted. St. Matthew preached in Ethiopia. St. Simon, say the Greeks, after having baptized in Egypt, Cyrenaica, Libya and Mauritania, went to England, and thence to Persia, where he died. St. Jude preached in Syria, Mesopotamia, Persia, Armenia and Libya. St. Peter, afterwards bishop of Antioch, and then of Rome, visited Asia Minor, and also Babylon, as one of his letters shows, provided *Babylon* does not signify, in that passage, *Rome*, as some critics have thought. St. Paul visited Asia Minor,

Greece and Rome. The two Jameses seem not to have gone far from Jerusalem; yet the body of James the greater is said to be buried at Compostela in Spain. According to Matthew (ch. xvi. ver. 18), Christ considered St. Peter the first in rank of the apostles; and it is known, that the pope derives his authority over the living and the dead from the power which Christ gave to St. Peter, of whom all the popes, according to the Catholic dogma, are successors in an uninterrupted line.—In Venice, the 12 first families were called *apostles*, as are likewise 12 islands in the straits of Magellan.

APOSTOLES ISLANDS; in the strait of Magellan, at its entrance into the Pacific, near cape Deseado. They are 12 in number, which circumstance gave them their name. All are small, barren and desert. Their shores abound with shell-fish. Lon. 75° 6' W.; lat. 52° 34' S.

APOSTOLICAL; all that comes from the apostles, or has relation to them. Thus the apostolical writings are writings composed by the apostles. The earlier Christian church was called the *apostolical church*, because the apostles at first conducted it, and, after their death, their spirit remained in it. So, also, the papal see is called the *apostolical see*, because it is supposed to have been founded by the apostle Peter.—The *apostolical office*, at Rome, is the name of the office which manages the papal revenues.—The *apostolical blessing* is the blessing bestowed by the pope, as successor of Peter.—The king of Hungary is styled *apostolical king, apostolical majesty*. Pope Sylvester II bestowed this title on Stephen I, duke of Hungary, A. D. 1000, because he not only greatly promoted the Christian religion in Hungary, but, also, in imitation of the apostles, preached himself. Clement XIII renewed the memory of this occurrence, by giving the empress-queen Maria Theresa the title of *apostolical queen*, in 1758.—The *apostolical symbol* is a short summary of the Christian faith, and bears this name because it contains, in three articles, the doctrines of the apostles. This apostolical symbol is found even in the writings of Ambrose, who lived in the beginning of the 4th century. Peter Gnapheus, in the 5th century, ordered the constant repetition of the same in the church service.

APOSTOLICS, or APOSTOLICI; the name of three sects who professed to imitate the manners and practice of the apostles. The first flourished at the close of the 2d

century. They had all things in common. Little else is known of their peculiar tenets.—The second sect of this name existed in the 12th century. It was composed of people of the lower class. They were numerous, and their lives, as Bernard admits, were exemplary. Their peculiarities were as follows:—They held it to be unlawful to take oaths; they suffered their hair and beards to grow to an enormous length; they preferred celibacy to wedlock, calling themselves the *chaste brethren and sisters*; each man, however, had a spiritual sister, with whom he lived in a domestic relation.—The third sect of A. was founded, about 1260, by Gerhard Sagarelli. They went barefooted, begging, preaching and singing throughout Italy, Switzerland and France; announced the coming of the kingdom of heaven, and of purer times; had females in their retinue, as the apostles had their female companions, and were suspected of unlawful intimacy with these sisters. This society never received the papal confirmation; on the contrary, it was abolished, A. D. 1286, by Honorius IV. Though they were persecuted by the inquisition, they continued in existence, perpetually wandering about; and, when Sagarelli was burnt as a heretic, A. D. 1300, another chief apostle appeared,—Dolcino, a learned man of Milan,—who encouraged the sect, now increased to 1400 men, with his prophetic promises. To defend themselves against persecution, they were compelled, about the year 1304, to station themselves in fortified places, whence they might resist attacks. In the plundering habits which they were forced to adopt, they wholly lost the original design of their institution, and, after having devastated a large tract of country belonging to Milan, they were subdued, A. D. 1307, by the troops of bishop Raynerius, in their fortress Zebello, in Vercelli, and almost all destroyed. Dolcino was burnt. The survivors afterwards appeared in Lombardy, and in the south of France, as late as A. D. 1368. Their heresy consisted in reviling the pope and the clergy.

APOSTOOL; a Mennonite minister at Amsterdam, who established, in 1664, a sect called *Apostoolians*, a branch of the Mennonites.

APOSTROPHE; a figure of speech which received this name from the ancients, because the orator, in using it, turned from the judge to the accuser or the accused, and spoke to him. In a more limited sense, we understand by it, an address to

one absent as if he were present, or to things without life and sense as if they had life and sense. The apostrophe, according to its nature, is spoken in an elevated tone. The same term is also used to signify the contraction of a word by the use of a comma.

APOTHECARY. (See *Pharmacy*.)

APOTHEOSIS (deification); a solemnity among the ancients, by which a man was raised to the rank of the gods. The custom of placing mortals, who had rendered their countrymen important services, among the gods, was very ancient among the Greeks, who generally followed, in so doing, the advice of an oracle. On their coins, most of the founders of cities and colonies are immortalized as gods; and, in subsequent times, living princes assumed this title. The Romans, for several centuries, deified none but Romulus, and first imitated the Greeks, in the fashion of frequent apotheosis, after the time of Augustus Cæsar. From this period, apotheosis was regulated by the decrees of the senate, and accompanied with great solemnities. There are still many monuments extant exhibiting the Roman apotheosis. It became, at last, so common, as to be an object of contempt. Vespasian, in an attack of sickness, said, by way of joke, "I am a god, or, at least, not far from it."—According to Eusebius, Tertullian and Chrysostom, Tiberius proposed to the senate the apotheosis of Jesus Christ, which, however, was refused by this body. Juvenal, satirizing the frequent practice of A., introduces poor Atlas, complaining that he could not any longer bear the immense and daily-increasing mass of gods. That virtuous persons, after their death, were raised to the rank of demigods, was a doctrine of Pythagoras, who probably derived this idea from the East. It corresponds with the notions of many Christians, who believe that virtuous men become angels after their death. The period of the Roman emperors, so rich in crime and folly, offers the most infamous instances of apotheosis. After Cæsar, the greater part of the Roman emperors were deified. The same hand which had murdered a predecessor often placed him among the gods. The savage Nero deified the beautiful Poppæa, his wife, after having killed her by a kick when she was pregnant; and Caracalla, having murdered his brother, Geta, with his own hands, in his mother's arms, granted him divine honors, accompanied with the infamous remark—*Sit divus, dum non sit virus*. The first em-

perors were not adored in their life-time; but, with the progress of insanity, temples were built to the living tyrant. Caligula was not satisfied with being a god; he wished to be a priest too, and, taking his horse as a companion in the office, offered sacrifice to himself, and, immediately afterwards, appeared as Jupiter or as Cythera, &c. Constantine had the double advantage of being deified by the religion which he had persecuted, and canonized by that which he supported. It was quite customary for the Christian emperors to have altars, and be adored by their pagan subjects. Critics are not wanting, who see, in the canonization of the Catholic church, nothing but a continuance of this Roman fashion of deifying men, with this difference only,—that saints were never canonized during their life-time. This deification of the living the Romans derived, perhaps, from the Greeks, whose lively and poetical imaginations led them sometimes to build altars to their mistresses, and offer sacrifices to them. The apotheosis never degenerated to such a criminal excess among the Greeks as among the Romans. The ceremonies of the Roman apotheosis were very curious, but are too long to be repeated here.

APPALACHIAN MOUNTAINS. (See *Alleghany Mountains*.)

APPALACHICOLA; a river of the U. States, formed by the Chatahoochee and Flint rivers, which unite near the northern border of Florida. The A., after a course of about 70 miles, flows into St. George's sound, in the gulf of Mexico, and is navigable throughout for schooners of considerable size. The Chatahoochee, the western and largest tributary of the A., rises in the Appalachian or Alleghany mountains, on the confines of Georgia and Tennessee, and is navigable for boats nearly 400 miles from the gulf of Mexico.

APPANAGE. (See *Apanage*.)

APPARENT, among mathematicians and astronomers, denotes things as they appear to the eye, in distinction from what they really are. Thus they speak of apparent motion, magnitude, distance, height, &c. So important is this difference between reality and appearance, particularly in regard to the heavenly bodies, that we find all early astronomers, who were ignorant of this fact, running continually into errors; and a great advancement in science was required, before mankind were able to establish systems opposed to appearances. Every one knows that a body may appear to move while it is, in fact, at rest, and the motion is in the spec-

tator, or the place on which he stands, as is the case with the sun, in relation to the inhabitants of this earth.—The phrase *apparent heir*, or *heir apparent*, signifies one whose right of inheritance is infeasible, provided he survives his ancestors; as the eldest son or his issue, who must, by the course of the common law, be heirs to the father. *Heirs presumptive* are such who, if the ancestor should die immediately, would, in the present state of things, be his heirs.

APPEAL (*law*) signifies the removal of a cause from an inferior tribunal to a superior; from the French *appeller*, of the same signification. In England, appeals lie from the ordinary courts of justice, and also from the equity courts to the parliament. Appeals from courts of equity differ from writs of error, which impugn the judgments of the ordinary courts, in these respects,—that the former may be brought upon interlocutory matters, that is, questions occurring in the course of the trial; the latter, upon definitive judgments only. On writs of error, the house of lords pronounces judgment; in appeals, it directs the court to rectify its judgment. In Germany, originally, appeals could be brought only when the feudal lord refused to administer justice. The cause might then be carried before the king's court; and, if magistrates decided wrongly, their decisions might be called in question (*Fr. fausser le jugement*), and thus the appellant became at issue with his former judges, and the dispute, according to law, was to be decided by mortal combat. Subsequently, all judgments were examined by a superior court. This change had been already introduced in France by king Louis IX, but was first firmly settled in Germany, by the establishment of the court of the imperial chamber, A. D. 1495. Appeal was made from the tribunals of the lords of manors to the courts of the princes, and from these latter to the tribunals of the empire, the court of the imperial chamber, and the aulic council. The states of the empire endeavored, as far as possible, to shake off this subordination of their tribunals to the supreme judicature of the kingdom. Austria, from the very first, kept herself perfectly free from this dependence. The electors were entitled to the same liberty, by virtue of their ancient privileges; but it had now become a fundamental law, that there should be three degrees of courts, and those who would not establish tribunals of the third or highest degree (high courts of appeals),

were obliged to allow the right of appeal to the supreme courts of the empire, and could obtain exemption therefrom only by particular imperial privileges (*privilegia de non appellando*). The same privilege was granted also to other states, who might establish their own supreme tribunals (as Sweden at Wismar, Hanover at Celle, Hesse-Cassel, &c.), or else send the documents, belonging to questions at issue, to foreign colleges, which had the right of final judgment. The tedious forms in the supreme courts of the empire, and other defects in the judicial administration, gave popularity to these establishments, on the part of the separate states; although the maxim, that 3 consecutive decrees are requisite for the entire settlement of a controversy at law, infinitely delayed the process; and the want of a supreme court, extending its authority throughout Germany, was highly prejudicial to the improvement of the German code. The dissolution of the German empire increased the difficulties attending the administration of justice in the small states; and it is one of the most salutary resolves of the German compact (while recognising the necessity of 3 consecutive judgments as a fundamental law of the empire), that the smaller states shall be compelled to erect, in common, high courts of appeal, and not confine themselves to petty, local jurisdictions. These supreme courts, common to several states, have all, within a few years past, been reduced to a regular order. The great limitation, almost amounting to exclusion of criminal cases, is a remarkable circumstance in the constitution of these courts. The diversity in the amounts of property in question, for which appeal is allowed from the different states, is also interesting. Saxe-Hildburghausen alone suffers all causes, without reference to the amount in dispute, to go to the high court of appeal at Jena. In the rest of the states, the limitation varies between 100 and 500 Saxon dollars. With a few differences in names and forms, all the judicial administration of Germany is now uniform, and the rule of the 3 gradations of tribunals is universal. The smaller states, we have already said, have joint courts of appeal. Austria has such courts of her own, at Vienna, and many other places, besides a supreme court of justice at Vienna. Hungary and Transylvania have a judicial constitution peculiar to themselves. In old Prussia, the courts of the first or lowest degree are those of cities, districts, &c.; of the second degree,

there are 15, in as many important places; of the third degree, there is properly but one, the superior tribunal at Berlin; but the efficacy of this court in maintaining unity in the administration of justice is much interrupted by many revisions of each other's decrees, which take place between the various courts of the second degree. The Prussian lands on the Rhine still have the French judicial constitution; and, for this, a court of revision was established at Berlin, by the decree of July 20, 1819, in the room of the French court of cassation. Bavaria has 8 tribunals, with appellate jurisdiction, and a supreme court of appeal, at Munich. The high courts of appeal of individual states, according to the choice of the parties in every case, stand in the place of a joint tribunal, for the settlement of the contests of the states with one another. In France, only two gradations are permitted—the tribunals of the first instance (district and county courts), and the courts of appeal (*cours royales*), which have taken the place of the old parliament. For the whole kingdom, however, there is the royal court of cassation, which has to decide only in cases where the competency of a tribunal, or the formality of a process, is called in question. This court does much towards the preservation of harmony in the administration of justice. (For courts of appeal in the U. States, see *Courts*.)

APPEAL, in the judicial language of England, besides the common meaning in other countries, had, till lately, another, also, denoting an accusation by one private subject against another, for some heinous crime, demanding punishment on account of the particular injury suffered, rather than for the offence against the public. The usual English criminal process is a process of accusation by indictment of a grand jury, in which the accuser is obliged to prove his charges, and the accused is not bound to give answer or reply with regard to his actions. The German criminal process, on the contrary, seeks especially to investigate the truth from the statements of the accused himself. In the English system, the prosecution is conducted by the government, at the request of the injured party, who has nothing further to do, but to furnish means of proof to the advocates of the crown. But the process of appeal, of which we are now to speak, was another sort of prosecution or suit, in which the defendant, or one of his relations, summoned the plaintiff before the proper tri-

bunal of justice (the king's bench), in order to obtain satisfaction for the offence, and to have the proper punishment inflicted. The accuser, here, is called *appellor*, or *appellant*, and the accused, *appellee*. This kind of appeal took place when the supposed criminal had been acquitted on an indictment, but not if he had been sentenced and punished for a less crime than that of which he was accused; for instance, of manslaughter instead of murder. If he was pardoned, this did not protect him from this private accusation, and, if found guilty on these charges, he was obliged to suffer the punishment established by law, and the king could not pardon him. This right of private accusation continued for a year. If, therefore, the judge, the public or the relatives were not satisfied with the sentence of acquittal passed by the jury, such an appeal might be made, and the person acquitted detained in prison till the end of the year, unless bail was given for his appearance to answer to the appeal. The jury on the appeal was usually different from that on the indictment, and examples are not wanting where a man has been brought in guilty by the second jury, on the same grounds upon which he was acquitted by the first. Thus, A. D. 1708, John Young was murdered, and suspicion fastened upon Ephraim Slaughterford, his friend, with whom he was last seen. He was acquitted at the assizes, but the public were so convinced of his guilt, that a subscription was opened to pay the expenses of a private accusation. Slaughterford was found guilty by a second trial, and executed. A similar event happened A. D. 1818. A young lady, Mary Ashford, was found murdered under circumstances which fixed the strongest suspicions upon one Abraham Thornton. He had waited upon her home from a ball, and had been with her, as he himself confessed, a short time before the discovery of her body, not far from the pit, full of water, in which it lay. Notwithstanding this, he was acquitted, and the brother of the deceased now prosecuted him by an appeal of murder. Upon this, Thornton made use of a right, the existence of which had been almost forgotten. He summoned the accuser to a wager of battle, i. e. a trial by combat, instead of submitting to a trial by jury. The validity of this right could not be questioned, and the advocate of the accuser received a severe reproof from the court, because he suffered himself to call it unreasonable and barbarous. The accuser, a weak

young man, 20 years old, did not venture to engage in a contest, with clubs, with the athletic Thornton: he was obliged to recall his accusation, and the suspected murderer was once more acquitted. The public feeling, however, was so strong against him, that he emigrated to America, where he soon after died. This event occasioned the abolition, not only of the wager of battle, but also of the right of appeal, as experienced lawyers were of opinion that the accused could not be deprived of the choice between a second trial by jury and a wager of battle. This was done A. D. 1819, by the act of parliament 59 George III, c. 46. Some may think that this abolition has occasioned an essential defect in the English laws; but it is merely applying to such cases a just and proper principle of criminal law, which is now generally adopted both in England and America, that no person shall be twice tried for the same offence,—a principle that gives great security against oppressive and successive prosecutions. The process of appeal and the trial by combat were never introduced into the American law.

APPELLANTS; a religious party. (See *Unigenitus*.)

APPENZEL; a canton of the Swiss confederation, surrounded on all sides by the canton St. Gall. It is divided into 2 parts, called *Inner-rod*, or *rhode*, and *Outer-rod*, each having, since 1597, a separate government, independent of the other. In respect to the other cantons of the confederacy, both are considered as forming one canton. The form of government is entirely democratic. Every man, above the age of 16 years, annually appears, with his sword, in the general assembly, when the officers are chosen. A. contains, on 222 square miles, 55,000 inhabitants. The canton is active in manufactures of different kinds, and in raising cattle. The chief place is the market-town, Appenzel, in the Inner-rod; lon. 9° 31' E.; lat. 47° 20' N.; pop. 3,000. (See *Swiss Confederation*.)

APPIAN of Alexandria; governor and manager of the imperial revenues, under Adrian, Trajan and Antoninus Pius, in Rome. He wrote a Roman history, from the earliest times to those of Augustus, in 24 books, of which only half have come down to us,—an unequal work, according to the sources from which the author drew his materials. The best late edition is that of Schweighäuser, Leipsic and Strasburg, 1785, 3 vols.

APPIAN WAY, leading from Rome to Capua; the oldest and most renowned

Roman road. It was made by Appius Claudius Crassus Cæcus, when he was censor, 313 years B. C., and afterwards extended to Brundisium: It consisted of hard, hexagonal stones, exactly fitted to one another; and there may still be seen, particularly at Terracina, important remains, which prove its excellent workmanship.

APPIANI, Andrew; a painter, born at Milan, May 23, 1754, of an old and noble, but poor family. He was obliged to work with scene-painters for his support, and to go with his masters from town to town. In Parma, Bologna and Florence, he had an opportunity to see and study the master-works of his art, and to form his style. He visited Rome 3 times, in order to penetrate the secret of Raphaël's style of fresco-painting, and soon excelled in this art every living painter in Italy. He displayed his skill particularly in the cupola of Santa Maria di S. Celso, at Milan, and in the paintings which he prepared for the walls and ceiling of the villa of the archduke Ferdinand, at Monza (1795). Napoleon appointed him royal court painter, gave him the order of the legion of honor, and that of the iron crown, and made him member of the Italian institute of sciences and arts. A. painted afterwards almost the whole of the imperial family. His best works are the fresco-paintings on the ceiling of the royal palace at Milan, allegories relating to Napoleon's life, and his *Apollo with the Muses*, in the villa Bonaparte. Almost all the palaces of Milan have fresco-paintings by him. Napoleon's fall affected A.'s fortune severely. He died in 1817, in straitened circumstances.

APPIUS CLAUDIUS CRASSINUS, a member of the patrician family of the Claudii, though cruel and arrogant, like his ancestors, was hardly appointed consul, B. C. 401, when, to gain the favor of the people, he supported the law proposed by the tribune Terentilius, or Terentius, which had for its object a change in the form of government. Instead of the usual magistrates, decemvirs (10 men) were appointed to compose a code of laws for Rome (afterwards called the *laws of the twelve tables*), and to possess sovereign power for a year. He was himself chosen decemvir, and when, after the first year, this office was prolonged for a year more, he was the only one who succeeded, by his influence over the chief men among the people, in being rechosen. He was resolved never again to give up his power, and conspired with his colleagues for the

accomplishment of this plan. The same year, the Æqui and Sabines laid waste a portion of the Roman territory. The decemviri collected an army, and marched against the enemy. Only A. and Oppius remained in Rome, with 2 legions, to support the authority of the decemviri, already prolonged beyond the lawful term, when an unexpected event overthrew them. A. was passionately in love with the daughter of Virginius, a respectable plebeian, absent with the army. When A., as a husband and a patrician, could not lawfully marry Virginia, who was betrothed to Icilius, formerly a tribune of the people, and had sought in vain to seduce her, he persuaded M. Claudius, his client, with several associates, to carry her off by violence from the public school where she was, under the pretence that she was the daughter of one of his slaves. The people compelled him to set her at liberty; but Claudius summoned her immediately before the tribunal of A., who decided that the pretended slave should be given up, for the present, to her master. Upon this, Numitorius, her uncle, and Icilius, her lover, made known the criminal designs of A. A fearful disturbance arose, and the decemvir was compelled to leave Virginia in the hands of her family; but he declared that he would pronounce his decision the next day. Virginius, summoned by his brother and Icilius, appeared in the forum, with his daughter, in a mourning dress. He brought the most indubitable proofs of the groundlessness of the claim; but A., trusting to the number of his guards, still commanded Claudius to take her as his slave. When Virginius asked permission of the decemvir to speak to her nurse, in Virginia's presence, that he might, for his own satisfaction, be convinced of his error, A. consented. Upon this, the unhappy father tenderly embraced his daughter, suddenly seized the knife of a butcher who was standing by, and plunged it into her bosom, with these words: "Go, free and pure, Virginia, to thy mother and thy ancestors." A. commanded Virginius to be seized; but he fled to the camp. The senators Valerius and Horatius, who hated the decemvirate, inflamed a spirit of vengeance in the people, already excited by the sight of Virginia's body, and A. could silence the disturbance only by summoning a meeting of the senate. In the meantime, Virginius had related the affair to the army, which marched to Rome, demanding revenge. The decemvirs, seeing they could no longer maintain

their authority, resigned their offices. The senate, without delay, resolved to restore the tribunes and consuls, A. U. 305. A. died in prison, Livy says, by his own hand; according to Dionysius of Halicarnassus, the tribunes caused him to be strangled. Oppius, also, who was accused of being his companion in crime, killed himself. The remainder of their colleagues escaped accusation by voluntary exile. The abject Claudius, as he had only been the tool of a tyrant, was banished to Tibur, then a desert. Alfieri has written a tragedy on the death of Virginia.

APPLAUSE (from Latin *plaudere*); to express approbation by any movement of the hands. No nation has systematized applause like the Romans, who, according to Suetonius, had 3 kinds—*bombus*, the noise of which was like the humming of bees; *imbrices*, which sounded like rain falling on the tiles; and *testæ*, a sound like the breaking of pots. The 2 latter were produced by instruments placed in the theatre, and persons were instructed to give applause with skill. The *plausores*, or applauders, were divided into *chori*, and disposed in theatres opposite each other, like the choristers in cathedrals. In France, England and America, applause is often given by making a noise with the feet, which, in Germany, always signifies a high degree of dissatisfaction. (For further information, see the article *Acclamation*.)

APPLE. The apple, in all its innumerable varieties, is said to have been derived entirely from the crab-apple (*pyrus malus*), which grows wild in every part of England, and, it is believed, in some of the middle regions of the U. States. The uses of the apple are very various; even the bitter crab-apple is not without value; for its fermented juice, known by the name of *verjuice*, is employed both in cookery and medicine, and also for the purifying of wax. Hogs and deer are fond of them. The wood is hard and durable, and makes good wheel-cogs, &c. All good apples, and many of the common kinds, are produced by the process termed *grafting*. This is performed by inserting young twigs or shoots from trees bearing fine fruit into stocks of inferior kinds, raised upon every farm, from the pomace of the cider-mill. Crab-stocks are thought to answer best in England, but all kinds are made use of in the U. States. The branches formed by the twig inserted are found to bear fruit corresponding in quality to the tree from which it was cut.

The same process is pursued with all other kinds of fruit-trees; for inoculated or ingrafted fruit is always found to be the best. The kinds of apples most highly prized in all countries are the varieties of pippin. The pippins of New York, New Jersey and Pennsylvania are the richest in flavor of any apples known in the U. States; while the greening, the pearmain, and gilliflower, are the best fruit of New England; and the varieties of russet-apple the most lasting, being often found in a good condition at midsummer of the next year. The common family uses of the apple are too familiar to need specification; but its most important application is to the manufacture of cider. The process for making the best cider is simple; perhaps quite as much so as any mode of spoiling it. The apples should be sorted according to their degrees of ripeness, &c., and left a few days in heaps to ripen, if necessary. They should then be ground in a mill, till they are entirely bruised. They are afterwards allowed to stand a day or two in open vessels or troughs, and then pressed between hair-cloths or layers of clean straw; the last is not so good, from absorbing and wasting a portion of the juice. The liquor running from the press is then received into a vat, or large casks, till it has fermented, when it is drawn off, and placed in clean, tight barrels or casks, to stand till it is fine and clear; it is then racked off from the lees, and kept in casks or bottled for use. A portion of brandy and a little flowers of sulphur render it more pure, and less likely to grow hard and sour. Cider is a very wholesome drink during the heat of summer, although more apt to derange the stomach, produce colic, &c., than beer. A liquor is obtained by distillation from cider, termed *cider-brandy*, of which great quantities are made in the Middle States; while a very strong liquid may be obtained by allowing cider to be frozen, and then drawing off the portion which remains fluid, and thus retains its heat. But a far more wholesome liquor than either is the pomona wine, which is prepared by adding 1 gallon of brandy to 6 of new cider, after it is racked off. This, when 8 or 12 months old, is a very good substitute for wine, for the use of the poor or the sick, and is, beyond all comparison, more wholesome than the wretched mixtures sold so cheap under the name of *Lisbon wine*, &c. &c.

APPOGGIATO denotes, in music, and particularly in song, a blended and not abrupt utterance of the tones; so that they

insensibly glide and melt into each other, without any perceptible break. It is from *appoggiare*, to lean on. Hence, also,

APPOGGIATURA; a small additional note of embellishment preceding the note to which it is attached, and taking away from the principal note a portion of its

time. It is expressed thus:



APPRENTICESHIP. The ancients had nothing similar to our apprenticeships, not even a term of corresponding signification. The mechanical arts were carried on, among the Greeks and Romans, by slaves. Apprenticeships in these and the liberal arts and professions grew up in the middle ages, when the members of a particular trade or profession formed a corporation. These corporations belong to those many institutions recorded in history, which were once necessary, and had useful effects, but which a change of circumstances, and revolutions in the social condition, as well as many abuses to which they became subject, have rendered, in most cases, inexpedient. They have generally been abolished. One of these abuses, in relation to trades, was the long period of service required in the apprenticeships, as it was evidently for the interest of the masters, who were already admitted to the practice of a trade, or made free of a corporation, to make the time of service as long, or the consideration for admission into the company as high, as they could. In some countries, another abuse crept in, viz., a very great latitude of discretion and authority allowed to masters in the treatment of their apprentices, many of whom were, accordingly, treated with great harshness and severity. The usual time of service was 7 years, and the custom of apprenticeships was extended to almost every trade and profession. The time of technical apprenticeship, among barristers in England, was 16 years, for which period the candidates were *apprenticii ad legem*; after which they might take the degree of serjeants, *servientes ad legem*. Adam Smith, in his *Wealth of Nations*, b. i, c. 10, maintains that apprenticeships are entirely unnecessary. He says,—“Arts which are much superior to common trades, such as those of making clocks and watches, contain no such mystery as to require a long course of instruction. The first invention of those beautiful and useful machines, indeed, must, no doubt, have been the work of deep thought and long time; but, when both have been

fairly invented, and are well understood, to explain to any young man, in the completest manner, how to construct the machines, cannot well require more than the lessons of a few weeks; perhaps those of a few days might be sufficient. In the common mechanical trades, those of a few days might certainly be sufficient. Dexterity of hand, indeed, even in common trades, cannot be acquired without much practice and experience.” He thinks, however, that it would be much better for the learner to acquire this dexterity in the character of a journeyman, than in that of an apprentice. But this view of the subject does not seem to be very practical. The change of the name of the novitiate, from that of *apprentice* to that of *journeyman*, would effect no material alteration in the relation between the employer and the employed, except in respect to the authority of the former over the latter. Doctor Smith, probably, would not recommend that a boy, going to learn a trade, should, from that time, be free; and, if not, it is much better that his master should stand to him, in some respects, in the relation of a parent. This is what is intended in the ordinary articles of apprenticeship; and the advantage to the parties, mutually, arising from this relation, is so great, and its beneficial influence in the community is so apparent, that there seems to be hardly any ground for questioning the expediency of continuing it. As to the time for which an apprentice ought to serve, without any compensation, or only for his support, it must depend on the particular trade. In the U. States, the conditions, in this respect, are very various. In some kinds of mercantile business, for instance, the apprentice or his parents defray the expense of his board and clothing; in other instances, something is allowed the apprentice on this account. In England, again, a sum of money is paid to the master, as a consideration for taking an apprentice; even in a common mechanical trade, the sum of 10 pounds, more or less, is paid for this purpose. In the U. States, nothing is paid on this account, but the terms of apprenticeship, in the different trades, and in agriculture, are very various. It is a frequent practice for a farmer to take a child, male or female, into his family, upon an agreement, in the case of a boy, that he shall remain until he is 21 years of age, or, in that of a girl, until she is 18; and, at the time of becoming free, the boy is to receive a certain number of suits of clothes, a certain sum of money

or perhaps a certain number of domestic animals,—sheep, cows or oxen. The stipulations for the female are for clothes, some articles of furniture, &c. In the mechanical trades, the apprentice is, in many cases, entitled to a certain rate of wages for the latter years of his service, or, at the expiration of his apprenticeship, he is to receive certain tools, or implements of his trade. All these stipulations must evidently depend upon the kind of trade to be learned, the character of the boy who is to learn, and the rate of wages allowed in the community for that particular kind of industry; and the laws of the U. States leave the parent or guardian of the youths, and other persons in the various professions, to make such stipulations upon these subjects as they choose, not restricting them as to the period or the terms of the apprenticeship, and leaving, in general, every person to practise any trade or profession, without regard to the time of his service as an apprentice. The only exceptions to this general rule relates to professions which immediately concern the public safety, or the lives of individuals, as those of the pilot, physician, surgeon, apothecary. In some of these professions and occupations, the laws of the U. States, and some of the individual states, put some restraints upon the practice of them by persons not duly qualified; or give some advantages or facilities to those who produce testimonials of their qualifications, or comply with certain prescribed conditions; such, for example, as taking a medical degree at some college or medical society, in the case of physicians.—In England, France and Prussia, the former laws, which restrained every one from the practice of any mechanical trade, who had not served a certain period as an apprentice, or obtained the license of some corporation, are, for the most part, abolished. In Prussia and France, the laws do not now recognise any corporations of these descriptions, as invested with any powers of this sort. The terms of apprenticeship are, as in the U. States and England, left to be regulated entirely by a contract between the master and the parents or guardian of the apprentice. (For information respecting the correctional and disciplinary authority formerly exercised by these corporations, in relation to apprentices, see *Corporation*.)

APPROACHES. (See *Trenches*.)

APPROXIMATION; a term used in mathematics to signify a continual approach to a quantity required, when no process is

known for arriving at it exactly. Although, by such an approximation, the exact value of a quantity cannot be discovered, yet, in practice, it may be found sufficiently correct; thus the diagonal of a square, whose sides are represented by unity, is $\sqrt{2}$, the exact value of which quantity cannot be obtained; but its approximate value may be substituted in the nicest calculations. This process is the basis of many calculations in pure and applied mathematics, and is of frequent use and great importance in all practical operations.

APRICOT (*prunus armeniaca*) is a fruit of the plum tribe, which grows wild in several parts of Armenia, and was introduced into England about the middle of the 16th century. Some consider the apricot the most delicate of all our hardy fruits. For pastry, certainly none is more excellent. It is used for tarts, both green and ripe; it is also preserved with sugar in both these states, and is sometimes dried as a sweet-meat. Care should be taken to gather it before it becomes soft and mealy. The kernels of apricots have a pleasantly bitter flavor, and answer much better, for several purposes in confectionary, than bitter almonds, which are commonly used. They likewise contain a sweet oil, which, like that of almonds, was formerly used in emulsions. The gum that issues from the apricot-tree is similar to that of the cherry. The wood is coarsely-grained and soft, and is consequently seldom used in carpentry. Apricot-trees are chiefly raised against walls, and are propagated by grafting upon plum-tree stocks.

APRIL; the name of a month; either from *aperire*, to open, because, at this time, the earth seems to be opening and preparing to enrich us with its gifts; or, according to Varro, from *Aphrodite*, because April is consecrated especially to this goddess.—Something similar to *April fools' day*, about the origin of which there are different opinions, is said, by Mr. Hammer, to exist in the East Indies, at the time of the Huli feast. This strange custom of April fools' day prevails throughout Europe, and in those parts of America which are inhabited by the descendants of Europeans. One of the explanations of the custom is as follows: In the middle ages, scenes from biblical history were often represented by way of diversion, without any feeling of impropriety. The scene in the life of Jesus, where he is sent from Pilate to Herod, and back again from Herod to Pilate,

was represented in April, and may have given occasion to the custom of sending on fruitless errands, and other tricks practised at this season. The phrase of "sending a man from Pilate to Herod" is common in Germany, to signify sending about unnecessarily. The reason of choosing the first of April for the exhibition of this scene was, that the feast of Easter frequently falls in this month, and the events connected with this period of the life of Jesus would naturally afford subjects for the spectacles of the season. The tricks of the first of April may, however, be the remains of some Roman custom derived from the East, and spread over Europe, like so many other customs, by these conquerors. In France, the unlucky party who may be fooled is called *un poisson* or *poisson* (mischief) *d'Avril*. In the north of Scotland, he is called a *gowk*, which signifies, in the Scotch dialect, a *cuckoo*.—One of the best tricks of this description is that of Rabelais, who, being at Marseilles without money, and desirous of going to Paris, filled some phials with brick-dust or ashes, labelled them as containing poison for the royal family of France, and put them where he knew they would be discovered. The bait took, and he was conveyed as a traitor to the capital, where the discovery of the jest occasioned universal mirth.

A PRIORI; the opposite of *a posteriori*. To judge or prove any thing *a priori*, means to do it on grounds or reasons preceding actual knowledge, or independent of it. Mathematical proofs, e. g., are *a priori*. On the contrary, judgments or proofs *a posteriori* are founded on knowledge before acquired, like the conclusions of natural history, and all experimental science.

APRON, in ship-building; a piece of curved timber fixed behind the lower part of the stem, immediately above the foremost end of the keel.

APSIDES. The orbits of the planets and comets are ellipses, in one of the foci of which is the sun. In the same way the satellites move round their planets. The nearest point of the ellipse from that focus, or the lower *apsis* (Greek, $\alpha\psi\iota\varsigma$), is called, in the orbits of the planets and comets, *perihelion*; the farthest point, or the higher apsis, is called *aphelion*. In the orbit of our moon, the corresponding terms are *perigee* and *apogee*. The straight line which joins the apsides, or the transverse axis of the ellipse, is called the *line of the apsides*. It moves slowly forward in the direction of the planet's

course. Therefore, if the earth sets out from the apogee, it must make more than a whole revolution in its orbit before it returns to the same point. The time which it employs in so doing is called an *anomolistical year*. It is, therefore, longer than a tropical one. (See *Year*.)

APULEIUS, A. Lucius, born at Madaura, in Africa, towards the end of the reign of Adrian, descended from respectable ancestors, and flourished about the middle, and in the latter half, of the 2d century. He studied at Carthage, became acquainted with Greek literature at Athens, particularly with the Platonic philosophy, and thence went to Rome, where, he himself says, he learned the Latin language without a teacher, by great exertions,—a circumstance not to be overlooked, in judging his style. To satisfy his thirst for knowledge, he performed tedious journeys, in which he was initiated into various mysteries; again lived some time at Rome; studied law; returned, finally, to his own country; married a rich widow, and was much respected.—A. was of an ardent and active spirit, with an uncommon share of wit, though much devoted to religious mysticism and magic. His *Golden Ass*, a romance in 11 books, contains wit, humor, powerful satire, and much poetical merit. He drew the materials from Lucian. The finest part of this work is the episode of *Psyche*, called, by Herder, the most tender and diversified of all romances. It is sufficient to render him immortal, even if he be, as some have supposed, only the narrator, and not the inventor, of the story. A. was also the author of many works on philosophy and rhetoric, some of which are still extant. His style is not pure. He is fond of numerous epithets and unusual constructions, and sometimes falls into a flowery and bombastic manner. The best edition of the *Golden Ass*, or the *Metamorphosis* ("golden" was a subsequent addition, to express the value of the book), is by Oudendorp Ruhnken and Boscha; Leyden, 1786—1823; 3 vols. 4to. Elmenhorst published the *Metamorphosis*, with a large part of the rest of A.'s philosophical writings, Frankfort, 1621.

APULIA. *Iapygia*, so called from Iapyx, son of Dædalus, comprehending the south-eastern parts of Italy, from the river Siris to mount Garganus, contains A. within its limits. In the most ancient times, three distinct nations dwelt here—the Messapians, or Sallentines, the Peucetians, and the Dauni, or Apulians. (See

Niebuhr's *Inquiry concerning the oldest historical Accounts of this Country*, in his *Roman History*, part i, sect. 99, compared with Wachsmuth's older *History of Rome*, sect. 61.) The Peucetians were in the southern part, as far as the Aufidus; the Dauni in the northern, as far as mount Garganus. The old Latin traditions speak of Daunus, a king of the Apulians, who was expelled from Illyria, and retired to this part of Italy. According to the tradition which conducts the wandering heroes of the Trojan war to Italy, Diomed settled in A., was supported by Daunus in a war with the Messapians, whom he subdued, and was afterwards treacherously killed by his ally, who desired to monopolize the fruits of the victory. Roman history informs us of no other Apulian kings, but mentions Arpi, Luceria and Canusium, as important cities. Aufidus, a river of A., has been celebrated by Horace, who was born at Venusia, in this territory. The second Punic war was carried on for years in A. Cannæ, famous for the defeat of the Romans, is in this region. *Puglia*, the modern name, is only a melancholy relic of the ancient splendor which poets and historians have celebrated. It now supports more sheep than men.

APURÉ; a river of South America, which rises in the Andes, near Pamplona, in Colombia, and, after an easterly course of about 500 miles, runs into the Orinoco, of which it is one of the most important tributaries. Lon. $66^{\circ} 36' W.$; lat. $7^{\circ} 36' N.$

APURIMAC; a river of Peru, which rises from a lake N. of Arequipa, and afterwards, joining the Ene, with several other rivers, forms the Ucayale. Lon. $73^{\circ} 40' W.$; lat. $10^{\circ} 50' S.$

AQUA FORTIS; nitric acid in a diluted state. (See *Nitric Acid*.)

AQUA MARINA. (See *Beryl*.)

AQUA REGIA; the name given by the alchemists to what is now called *nitromuriatic acid*,—a mixture of nitric and muriatic acid, yellow, and possessing the power of readily dissolving gold, which neither possessed separately. (See *Nitric Acid*.)

AQUA TINTA; the art of engraving on copper, after the manner of Indian ink, by which happy imitations are made of figures that have been drawn with the pencil in Indian ink, bistre, sepia, &c., particularly those which are on a large scale. There are several sorts of it. In the first, after the outlines of the figure have been etched, finely powdered mastic (*colophonium*) is sifted over the plate,

which is then warmed over coals, that the mastic may be melted. In this way, insensible spaces are formed between the particles of mastic, upon which the nitric acid is afterwards to act. The work then goes on as in the mezzo tinto, only that the scraper is used in this, and the pencil in that; and all the places where there is to be no work or shade, are covered with a thick black varnish, on which the acid does not act. The nitric acid is now poured on, and left to stand as long as is necessary for the lightest shade—about five minutes. The light shades are now stopped out with varnish, and the acid allowed to act a second time, and this stopping out is continued till we come to the deepest shades, which are bit in last. This method is best for historical and architectural subjects; but in landscapes, in which the trees require more freedom of the pencil, the second is used. In this, a good etching ground is spread over the plate, and covered, by means of a hair-pencil, with oil of lavender or oil of turpentine, to which lamp-black is sometimes added. The oil softens the ground, which may be wiped off with a fine linen cloth, leaving all the marks made with the pencil apparent on the copper. Then, as in the first process, fine mastic is sifted over the plate, melted in and etched. This operation may be repeated many times, according as there are more or fewer tints in the original. By a happy union of both sorts, this style of engraving is carried to a high degree of perfection, and is particularly adapted to express the coloring of the air, where large surfaces are often represented of one tint. In France and Switzerland, the *roulette* is used—a little wheel or roller of steel, with a rough surface and several prominences, which, when it is rolled back and forth on the plate, deepen the excavations made by the acid. They have roulettes of all degrees of size and fineness, to make deeper or more shallow impressions on the plate. From time to time, the particles separated by this process are removed with a scraper.—The aqua tinta mode was first introduced a short time since into England and Germany; and the English, particularly since Gilpin brought the art into notice, have adorned their literary works in this manner. (See *Engraving*.)

AQUA TOFANA; a poisonous liquid, which excited extraordinary attention at Naples, at the end of the 17th and beginning of the 18th centuries, the history of which, however, is obscure. Tofana, a

Sicilian woman, seems to have invented it. According to Lobat, after she had murdered many hundred men, she was strangled, although, on the discovery of her guilt, she fled to a convent. Keyssler, on the contrary, affirms that she was still alive in prison, 1730.—The drink is described as transparent, tasteless water, of which five or six drops are fatal, producing death slowly, without pain, inflammation, convulsions or fever. Gradual decay of strength, disgust of life, want of appetite, and constant thirst, were the effects, which soon changed to an entire consumption. That the exact day of death can be predicted, is a mere fable. The strangest stories, with regard to its composition, have gone abroad. A solution of crystallized arsenic seems to have been the chief ingredient, to which something else was added, probably to conceal the presence of it.

AQUEDUCT. (See *Aqueduct*.)

AQUAMBOE; one of the greatest kingdoms on the coast of Guinea, in Africa, stretching 20 miles in breadth, and 10 times that space in length from E. to W. The inhabitants are very warlike, and infest their neighbors much.

AQUARIANS. 1. Christians in the primitive church, who consecrated water instead of wine for the celebration of the Lord's supper; some for the sake of abstinence, others because they thought it unlawful to eat flesh or drink wine. 2. Those Christians, also, were denominated *Aquarians*, who used water instead of wine, at the celebration of the eucharist, for fear the smell of wine should discover them to the heathens.

AQUARIUS is the name of the eleventh sign of the zodiac, emblematical of the rainy season. The constellation of the same name contains 108 stars in the Britannic catalogue, and 119 in that published at Berlin.

AQUAVIVA, Claude, son of the duke of Atri, was born in 1542. He became general of the Jesuits in 1581, and died about 1607. (See *Jesuits*.)—There is another A., with the baptismal name of *Ottavio*, cardinal and papal legate at Avignon. He was renowned for moderation, wisdom and patronage of the sciences and arts. He was the particular friend of the learned Peiresc, and lived under Clement VIII.

AQUEDUCT (Latin, *aqueductus*); a conveyance of any kind made for conducting water. The Greeks did very little towards the construction of aqueducts and roads. The Romans, on the contrary,

who were more persevering, and had abundant resources of men and money, made prodigious structures of both kinds. Some of the immense aqueducts of the Romans are still in use; some, in the state of ruins, are among the greatest ornaments of Italy. In other ancient countries, also, large aqueducts were built; e. g., under Sesostris, in Egypt; under Semiramis, in Babylonia; under Solomon and Hezekiah, among the Israelites. The consul Sextus Julius Frontinus, who had, under the emperor Nerva, the direction of the aqueducts, has written a treatise on this subject,—*De Aquæductibus Urbis Romæ*,—and is of opinion, that they are the most distinguishing proofs of the grandeur of the empire. He mentions 9 aqueducts, which had 1594 pipes of an inch and upwards in diameter.—Aqueducts were either formed by erecting one or several rows of arcades across a valley, and making these arcades support one or more level canals; or by piercing through mountains, which would have interrupted the water-course. When the aqueduct was conveyed under the ground, there were openings at about every 240 feet. Some of the Roman aqueducts brought water from the distance of upwards of 60 miles, through rocks and mountains, and over valleys in places more than 190 feet high. The declivity of the aqueduct, according to Pliny, was 1 inch, and according to Vitruvius, $\frac{1}{2}$ a foot, in a hundred.—The censor Appius Claudius Crassus Cæcus, the builder of the great road which was called after him, caused the first aqueduct to be built at Rome, the *Appia aqua*. Frontinus, as we stated, mentions 9, Procopius 14, and P. Victor 24 aqueducts; some of which were one, some two, some even three stories high, and many miles long. In almost all countries where the Romans extended their conquests, aqueducts were built; thus we find the remains of them in France, Spain and Asia. The principal Roman aqueducts now remaining are the *aqua Virginia*, repaired by pope Paul IV, and the *aqua Felice*, constructed by Sextus V. In modern times, that of Segovia may be compared with the most admired works of antiquity. At a recent period, there remained 159 arcades, wholly consisting of enormous stones joined without mortar. Louis XIV began an aqueduct, in 1684, near Maintenon, to carry water from the river Eure to Versailles; but the works were abandoned in 1688. This would have been, perhaps, the largest aqueduct in the world; the whole length

being 60,000 fathoms, the bridge being 2070 fathoms in length, 220 feet high, and consisting of 632 arches.—*Aqueduct*, in anatomy, is a bony canal or passage, in the *os petrosum*, supposed to contribute to the purposes of hearing.

AQUILA; the chief city of Abruzzo Ulteriore II, on the chain of the Apennines, with a population of 7500. It is the ancient *Amiſternum*, and the birth-place of Sallust. It is of military importance as the point where several roads meet, and contains a citadel which capitulated, 1815 and 1821, on the first appearance of the Austrians. (See *Abruzzo*.) In 1703, it suffered most severely by an earthquake. Lon. 13° 25' E.; lat. 42° 19' N.

AQUILEIA, also **AGLAR**; in the time of the Roman emperors, a flourishing commercial city on the Adriatic sea, and the *Timavus*, in Upper Italy. Marcus Aurelius made it, A. D. 168, the principal fortress of the empire. It was the key of Italy against the barbarians, and, on account of its wealth, was sometimes called the *second Rome*. It was also the seat of a patriarch, whose diocese, in 1750, was divided into the archbishoprics Udine and Gorz, afterwards Laybach. In 452, it was destroyed by Attila. The inhabitants fled to the islands on which Venice was afterwards built. An inconsiderable city afterwards arose here, which now belongs to the Austrian kingdom Illyria (circles Trieste and Friuli). The inhabitants (1500) support themselves, chiefly, by a trifling fishery, and foreigners visit the place on account of the Roman antiquities to be found there.

AQUINAS, St. Thomas, a celebrated scholastic divine, descended from the counts of Aquino, in Calabria, in the kingdom of Naples, was born in the year 1224. He acquired the rudiments of education at the school of Monte Cassino, and was thence removed to the university of Naples. At the age of 17, he entered a convent of Dominicans, much against the wishes of his mother, who persevering in her wishes to recover him, the monks, anxious to secure so honorable an addition to their fraternity, determined to send him out of the kingdom to Paris. He was, however, arrested by his two brothers on his way, and, refusing to give up his intention, was shut up in a castle belonging to his father for two years. He at last, however, found means to escape to Naples, and, in the year 1244, was conducted by John, master of the Teutonic order, to Paris, whence he soon after departed to Cologne. At Cologne, he

studied under Albert, an eminent teacher of philosophy, who foresaw his future celebrity. In 1246, he visited Paris, in company with Albert, and, at the age of 24, became a preceptor, at the university of that capital, in dialectics, philosophy and theology, and acquired the highest reputation. Princes and popes held him in the greatest estimation, and he was invited by St. Louis, then reigning in France, to his court and table. On a visit to Rome, Aquinas distinguished himself by a neat repartee: being in a closet with Innocent IV, when an officer brought in a large sum of money produced by the sale of absolutions and indulgences, "You see, young man," said the pope, "the age of the church is past, in which she said, 'Silver and gold have I none.'" "True, holy father," replied the angelic doctor; "but the age is also past, when she could say to a paralytic, 'Rise up, and walk.'" In 1263, he returned to Italy, when pope Clement IV offered him the archbishopric of Naples, which he refused. A general council being summoned at Lyons, in 1274, for the purpose of uniting the Greek and Latin churches, Aquinas was called thither, to present the council with a book, which he had written on the subject, but died on the way, near Terracina. After his death, the honors paid to his memory were prodigious: besides the title of *angelic doctor*, bestowed on him after the fashion of the times, he was called the *angel of the schools*, the *eagle of divines*, and the *fifth doctor of the church*; and, at the request of the Dominicans, he was canonized by John XXII, his tomb supplying the necessary testimony of miracles. His writings, which were held in the highest estimation in the next century, gave rise to a sect, called, after him, *Thomists*. They are exceedingly voluminous, amounting to 17 volumes folio. His principal work, *Summa Theologiæ*, bears a high reputation in the Roman Catholic church, and the second section on morals is universally esteemed. The latest edition of his works at large is that of Antwerp, 1612; but his *Summa Theologiæ* has passed separately through various editions. The resemblance, in thinking and writing, between Augustin and Aquinas is so marked, that it has been fancifully said, that the soul of the one had passed into the body of the other.—Another A., properly called *Philip d' Aquino*, a baptized Jew, acquired much reputation by his knowledge of Hebrew, which he taught at Paris, in the reign of Louis XIII,

as well as by his *Dictionarium Hebræo-Chaldæo-Thalmudico-Rabbinicum*.

AQUITANIA; the name of a Roman province in Gaul, which comprehended the countries on the coast from the Garonne to the Pyrenees, and from the sea to Toulouse. Augustus extended it to the Loire. Those who dwelt near this western coast were called, by the Celts, *Armoricans*, and were probably of Spanish origin, driven towards the west by the incursions of the Celts. They were actively engaged in commerce. In Aquitania the Visigoths established a kingdom, A. D. 412. Since that time, it has been sometimes a kingdom, sometimes a duchy; and, more lately, it has passed under the name of *Guienne*. At present, the ci-devant Guienne forms the two departments of Gironde, and of Lot and Garonne.

ARABELLA STUART; commonly called the *lady Arabella*. This unhappy and innocent victim of jealousy and state policy was the only child of Charles Stuart, earl of Lennox, younger brother to Henry lord Darnley, the husband of Mary queen of Scots. She was therefore cousin-german to James I, to whom, previously to his having issue, she was next in the line of succession to the crown of England, being the grand-daughter of Henry VII, by the second marriage of his eldest daughter, Margaret. She received an excellent education. Her proximity to the throne was the source of her misfortunes. Elizabeth, for some time before her decease, held the lady Arabella under restraint, and refused the request of the king of Scotland to give her in marriage to the duke of Lennox, his kinsman, with a view to remove her from England. The pope had likewise formed the design of raising her to the English throne, by espousing her to the duke of Savoy; which project is said to have been listened to by Henry IV of France, from a wish to prevent the union of England and Scotland. The detection of a plot of some English nobles to set aside James in favor of A., of which she was altogether innocent, ultimately proved her destruction; for, although left at liberty for the present, when it was some time after discovered that she was secretly married to the grandson of the earl of Hertford, both husband and wife were committed to the tower. After a year's imprisonment, they contrived to escape, but the unhappy lady was retaken. Remanded to the tower, the remainder of her life was spent in close confinement,

which finally deprived her of her reason. She died on the 27th September, 1615, aged 38 years. She possessed talents of a superior order, and a very pleasing person.

ARABESQUE, or ARABESK. (See *Grotesque*.)

ARABIA; a peninsula containing about 1,000,000 square miles, and 12,000,000 inhabitants; the most westerly portion of southern Asia, extending from 33° 30' to 59° 30' E. lon., and from 12° to 30° N. lat. By the inhabitants, it is sometimes called *Arabia*, sometimes *Dschesira al Arab*; by Turks and Persians, *Arabistan*. It lies between the Red sea and Persian gulf; bounded on the north by the great deserts Irak and Dschesira, on the south by the Arabian sea, and connected with Africa on the north-west by the isthmus of Suez. Instead of the old divisions of Ptolemy,—A. Deserta, A. the Stony, or A. Petræa (from an ancient fortified place, used for merchandise, called *Petra*), and A. the Happy,—the more natural division is that which distinguishes the coast, covered with aloes, manna, myrrh, frankincense, indigo, nutmegs, and especially coffee, from the interior, consisting of a desert of moving sand with thorns and saline herbs. The civil divisions are 5 provinces:—1. The country of Yemen, containing about 68,700 sq. miles, and 3,000,000 inhabitants, is governed by the hereditary caliph or imam of Yemen, who recognises the supremacy of the Turkish caliphate, and resides at Sana. In 1818, the viceroy of Egypt subjected Yemen, which contains Mocha, on the straits of Babel-mandel. The tribute which he obtains from it is 2000 hundred weight of coffee. Aden, the chief gum-market, lies in ruins. 2. The province Oman, under the imam of Mascat, a seaport, containing 60,000 inhabitants, to which belongs, also, the island Socotra (which furnishes the best aloes), on the coast of Africa. 3. The province Lachsa, or Hadsjar, whose harbors, in the Persian gulf, are infested with pirates, has also rich pearl-fisheries. 4. The provinces Nedsched and Jemama, the original and principal country of the Wahabees (q. v.), or Wehhabites, with their chief city, Derrekeh. This country, or Central Arabia, has become very familiar by Mengin's *Hist. d'Egypte sous Mohammed Ali*, and a map of Jomard, 1823. 5. The province Hedsjas, on the upper shore of the Red sea. Here is the Holy Land of the Mohammedans, containing Mecca, Medina, &c. Not far from the valley of Moses are the remarkable antiquities of Petra and Jerrasch. The

sea-port, Jidda, population 5000, is indeed the residence of a Turkish pacha, but the sheriff of Mecca conducts the government himself. In the Syrian deserts lie the ruins of Palmyra. (q. v.) On the western coast of Arabia there are high chains of mountains, which unite on the north with the mountains of Syria, and are connected with the primitive mountains of Asia: among them are Sinai and Horeb. Of the rivers, which appear only after great rains, and seldom reach the sea, the Aftan, on the sea-coast is the most considerable: the Euphrates lies on the northern boundary.—The climate is very various. Countries where it rains half the year alternate with others, where dew supplies the place of rain for the whole season. The greatest cold prevails on high places, and the most oppressive heat in the plains: Damp winds succeed to the dry simoom, which is as dangerous to life as the harmattan and khamseen in Africa. The soil consists of sandy deserts and the most fruitful fields. Wheat, millet, rice, kitchen vegetables, coffee (which grows on trees in Arabia, its home, and on bushes in America, the plants being kept low for the sake of gathering the fruit more easily), manna, sugar-cane, cotton, tropical fruits, senna-leaves, gums, aloes, myrrh, tobacco, indigo, odorous woods, balsam, &c., are the rich products of Arabia. There are, also, precious stones, iron and other metals (gold excepted, which the ancients, however, seem to have found pure in rivers and in the earth). The animals are, mules, asses, camels, buffaloes, horned cattle, goats, noble horses, lions, hyenas, antelopes, foxes, apes, jerboas; birds of all sorts, pelicans, ostriches, &c.; esculent locusts, scorpions, &c.—The inhabitants are principally genuine Arabs, who speak a peculiar language, and profess the Mohammedan religion. The Arabians are still, as in the most ancient times, Nomades, of patriarchal simplicity. They are herdsmen and husbandmen. A passionate love of liberty, independence and justice keeps them in a condition in many respects happy. The old "Peace be with thee" is still their common salutation. "Welcome! what do you wish?" is the address to a stranger, whose entertainment costs him only a "God reward you." They practise robbery, though never at the expense of the laws of hospitality. This warlike people have much activity and skill in bodily exercises; a good physical conformation; in warm plains, a skin of a

brownish-yellow: their hardy education, cleanliness and temperance secure them from sickness. They call themselves *Bedouins* (*Bedevi*, sons of the desert, the *Arabes Sienita* among the ancients), and are distinguished by their mode of life from the Moors, who dwell in houses, and carry on, exclusively, agriculture, trade and commerce. Besides the original inhabitants, Christians, Jews, Turks and Banians dwell in the country. Formerly, Arabia was the great depot of the Phœnician land trade: at present, the trade by land and sea is wholly in foreign hands. That by land is conducted by caravans. In the high schools of the Arabians, instruction is given in astronomy (rather astrology), pharmacology, and philosophy, so called: attention is also paid to history and poetry. The Bedouins remain in the deepest ignorance. Their government is very simple: the chiefs are named the *great emir*, the *emir*, and *sheikh*, and the judges are called *cadî*. The Turkish sultan is, indeed, nominal master of the country, but the free Arabian scorns his imbecile rule, and only obeys when he pleases.—The history of the Arabians, before Mohammed, is obscure, and, on account of its slight connexion with the rest of the world, of little interest. The original inhabitants of the country are called by the present Arabs *Bajadites* (the lost). The present Arabs derive their origin from Joktan or Kahtan in part, and in part from Ishmael. The descendants of the former call themselves, emphatically, *Arabs*; those of the latter, *Mostarabs*. The name *Arab* signifies an inhabitant of the West (for they are in that direction from the Asiatics): in Europe and Africa, they were called *Saracens* (inhabitants of the East). The older Arabian historians understand by Arabia only Yemen. Hedsjaz (the rocky) they regard as belonging partly to Egypt, partly to Syria; and the rest of the country they call the *Syrian desert*. The princes (*tobbai*) of this land were, anciently, entirely of the race of Kahtan, to which belonged the family of the Homeyrites, who ruled over Yemen two thousand years. The Arabians of Yemen and a part of the desert of Arabia lived in cities, and practised agriculture: they had commerce, also, with the East Indies, Persia, Syria and Abyssinia; and to the latter of these countries they sent many colonies, so that it was probably peopled by them. The rest of the population then, as now, led a wandering life in the deserts.—The religion of the Arabians, in

the time of their ignorance (as they call the period before Mohammed), was, in general, adoration of the stars; varying much, however, in the different tribes, each of whom selected a different constellation as the highest object of worship.—For a thousand years, the Arabians manfully defended the freedom, faith and manners of their fathers against all the attacks of the Eastern conquerors, protected by deserts and seas, as well as by their own arms. Neither the Babylonian and Assyrian, nor the Egyptian and Persian kings, could bring them under their yoke. At last they were overcome by Alexander the Great; but, immediately after his death, they took advantage of the disunion of his generals and successors to recover their independence. At this period, the northern princes of the country were bold enough to extend their dominion beyond the limits of Arabia. The Arabian Nomades, especially in winter, made deep inroads into the fertile Irak or Chaldæa. They finally conquered a portion of it, which is hence still called *Irak Araby*. Thence the tribe of Hareth advanced into Syria, and settled in the country of Gassan, whence they received the appellation of *Gassanides*. Three centuries after Alexander, the Romans approached these limits. The divided Arabians could not resist the Roman arms every where successfully; their country, however, was not completely reduced to a province; the northern princes, at least, maintained a virtual independence of the emperors, and were regarded as their governors. The old Homeyrites in Yemen, against whom an unsuccessful war was carried on in the time of Augustus, preserved their liberty. Their chief city, Saba, was destroyed by a flood. With the weakness of the Roman government, the struggle for absolute independence increased, which a union of all the Arabian tribes would have easily gained; but, weakened and scattered as they were, they spent several centuries in this contest, during which the mountainous country of the interior (Nedschid) became the theatre of those chivalrous deeds so often sung by Arabian poets, till a man of extraordinary energy united them by communicating to them his own ardor, and union was followed by augmented force.—Christianity early found many adherents here, and there were even several bishops, who acknowledged as their metropolis Bosro in Palestine, on the borders of Arabia. Yet the original worship of the stars could not be entirely

abolished. The former opposition of the Arabians to the despotism of Rome drew to them a multitude of heretics, who had been persecuted in the orthodox empire of the East, especially the Monophysites, and the Nestorians, who were scattered through all the East; and the religious enthusiasm of those exiles rekindled the flame of opposition. The Jews, also, after the destruction of Jerusalem, became very numerous in this country, and made proselytes, particularly in Yemen. The last king of the Homeyrites (Hamjarites) was of the Jewish faith, and his persecutions of the Christians, A. D. 502, involved him in a war with the king of Ethiopia, which cost him his life and his throne. To the indifference excited by so great a variety of sects is to be referred the quick success of Mohammed in establishing a new religion. He raised the Arabians to importance in the history of the world, and with him begins a new epoch in the history of this people. (See *Moors*, and *Caliph*, *Caliphate*.)

ARABIAN GULF. (See *Red Sea*.)

ARABIAN LITERATURE AND LANGUAGE.

Of the first cultivation and literature of this country, we have but few accounts. That poetry early flourished in Arabia, may be inferred from the character of the inhabitants, who are known to be bold, valiant, adventurous, proud, and excessively fond of honor. The tribes who wandered, under the government of their sheiks, through the beautiful region of Arabia the Happy, had every thing favorable to the growth of poetry,—a delightful country, lively feelings and warm fancy. If it were beyond doubt, that the poem of Job was of Arabian origin, this would show, not only that Arabia Petrea had its poets, but also the character of their productions. We find in it bold images, noble metaphors, comparisons and descriptions, mingled with enigmas. The antiquity of philosophy among the Arabians might also be shown from Job,—a poem comprehending, at the same time, physical and astronomical knowledge, which is, however, very imperfect. Even before the time of Mohammed, the genius of the people was very conspicuous, particularly in poetry. In the fairs at Mecca and at Okadh, A. D. 500, poetical contests were held, and the poems to which the prize was awarded, were written on byssus, in letters of gold, whence they were called *Modabahâth*, (gilt), and hung up in the caaba, at Mecca, therefore called *Moallakâth*, (hung up). The collection of the *Moallakâth* contains 7 poems, by 7

authors—Amralkais, Tharasah, Zoheir, Lebid, Anthara, Amru Ben Kalthun, and Hareth. They are distinguished by deep feeling, high imagination, richness of imagery and sentiment, national pride and liberal spirit, violent breathings of revenge and love.—The brightest period of the Arabian history commenced with Mohammed, and was soon followed by the golden age of their literature. Mohammed announced himself to the people as a prophet sent from God, and laid down rules of faith and life, which were collected by Abubekr, first caliph after his death, corrected and published by Othman, the third caliph, and constitute the Koran. (q. v.) By this, the Arabian language of literature was fixed, the first literary direction given to the people, and their national character determined. The Arabians seem to be favorably situated for commerce, but less so for conquest, particularly as a large part of the population consists of tribes wandering through the desert, and living alternately by keeping cattle and by plunder. But Mohammed succeeded in subduing the whole country, gave it a constitution at once religious and military, and inflamed the native valor of the people by an enthusiastic zeal for religion. When he died, A. D. 632, without a male heir, his adherents chose a caliph (successor) in his room, under whom the spirit of conquest first took possession of the Arabians, and urged them onward like a rapid stream. Only 80 years after the death of Mohammed, their power extended from Egypt to the Indies, from Lisbon to Samarcand. During this period, the nation was only animated with warlike enthusiasm, under the dominion of which the tender blossoms of genius seldom thrive. Time, and intercourse with cultivated nations, by degrees overcame their rudeness. With the government of the caliph of the family of the Abassides, A. D. 750, began their progress in the arts and sciences. In the splendid court of Al Mansur, at Bagdad, these first found support; but it was Haroun al Raschid, (786—808) who infused into his people an enduring love for them. He invited learned men, from all countries, to his kingdom, and paid them princely salaries. He caused the works of the most famous Grecian authors to be translated into Arabic, and spread abroad by numerous copies. Al Mamun, who ruled soon after him, offered the Grecian emperor 10,000 pounds of gold and a perpetual peace, if he would send him the philosopher Leo, for a time, to instruct

him. Under his government, excellent schools were established at Bagdad, Bassora, Bochara, Cufa, and large libraries at Alexandria, Bagdad and Cairo. The caliph Motasem, who died A. D. 841, was of the same disposition, and a high degree of literary rivalry existed between the dynasty of the Abassides in Bagdad, and that of the Ommaiades in Spain. What Bagdad was to Asia, the high school at Cordova was to Europe, where, particularly in the 10th century, the Arabians were the chief pillars of literature. At a time when learning found scarcely any where else a place of rest and encouragement, the Arabians employed themselves in collecting and diffusing it in the three great divisions of the world. Soon after the beginning of the 10th century, students travelled from France, and other European countries, to the Arabian schools in Spain, particularly with the view of learning mathematics and medicine. Besides the academy of Cordova, the Arabians had established 14 others in Spain, without mentioning the higher and the elementary schools. They had 5 public libraries, and Casiri mentions 17 Arabians in Spain, who undertook scientific journeys. Such rapid advances did this nation make (which, scarcely half a century before, was limited to the Koran, poetry and eloquence) when they had formed an acquaintance with the Greeks. In geography, history, philosophy, medicine, physics, mathematics, and especially in arithmetic, geometry and astronomy, their efforts have been crowned with great success, as is proved from the various terms of Arabian origin, still in use; for example, *almanac*, *algebra*, *alcohol*, *azimuth*, *zenith*, *nadir*, and many others. The invention of the common ciphers, also, has been generally ascribed to them; but professor Seyffarth, who has been lately engaged in examining the precious collection of papyri and other Egyptian antiquities in the royal museum of Turin, among other important discoveries, asserts, that the Arabic figures are found among those of the Egyptians, which renders it probable that the Arabians did not invent, but merely borrowed, their ciphers. The Egyptians wrote, as we do, 1, 2, 3, &c. Even their fractions resemble ours, their fractional figures being written above and below a small horizontal line. He has also discovered that they employed the decimal system. Most of the geography in the middle ages is the work of the Arabians. They extended, in Africa and Asia especially, the

limits of the known world. In the north of Africa, they penetrated as far as the Niger; in the west, to the Senegal; in the east, to cape Corrientes. When they first commenced their conquests, the generals were ordered, by the caliphs, to give a geographical description of the conquered countries. The countries, nations and wealth of Asia were, in a great degree, known to them. They extended the knowledge of Arabia, their own country, of Syria and Persia, and gained some acquaintance, at least, with Great Tartary, the south of Russia, China and Hindostan. Al Marun, Abu Ischak, Scherif Edrisi, Nassir Eddin, Ebn Haukal, who wrote between A. D. 15 and 21, Abulfeda, and Ulugh Begh Abdollatif, distinguished themselves as geographers; and much that the most renowned among them, Abulfeda and Edrisi, have written, is still useful and important in regard to historical geography. The Arabian historians, since the 8th century, have been very numerous, though they have not yet been long enough known to European scholars to enable them to derive much advantage therefrom. The oldest and best known historian is Hesham Ibn Muhamed Ibn Schoaib Alkhekebi, A. D. 818. Praise is due, also, to Abu Abdallah Mohammed Ibn Achmed, Abulpharagius, George Almakini, Abulfeda (who wrote a universal history of the world till A. D. 1315), Macrizi, Arabschah, and others. The later historical works are in a calmer and more simple style.—The philosophy of the Arabians was of Greek origin, and derived principally from that of Aristotle, which was studied first by those in Spain, and thence in all the west of Europe, having been translated from Arabic into Latin. Hence the origin of the scholastic philosophy may be traced to the Arabians. To dialectics and metaphysics they paid particular attention. Of their philosophical authors, Alfarabi must be mentioned, who wrote on the principles of nature, 954; Avicenna, who died A. D. 1036, and, besides other philosophical writings, was the author of a treatise on logic, physics and metaphysics, and of a commentary on the works of Aristotle. Ibn Bajah distinguished himself as an original thinker. Algazel wrote a work, attacking all philosophical systems, to which Hapthalath Hahappalah published an answer. The commentary on Aristotle, by Averroes, was particularly esteemed, and his paraphrase of Plato's Republic, which appears formerly to have been little read, even among his

countrymen, deserves much praise. Many famous philosophers were, at the same time, physicians; for the physical sciences, including medicine, were not then separated from philosophy. Next to geography, the Arabians, without doubt, have contributed most to these sciences. At Dschondisabur, Bagdad, Ispahan, Firuzabad, Bukharia, Cufa, Bassora, Alexandria and Cordova, from the 8th to the 11th century, medical schools were instituted, and, with the devoted study bestowed on this branch of science, the nation could not fail of making important advances in it, though, in reality, they were here also dependent on the Greeks. Anatomy made no progress among them, because the Koran expressly prohibited dissections. Yet they had an extensive knowledge of medicine, zealously studied botany, and might be regarded as the inventors of chemistry; at least, they have made many discoveries in it, and Dscheber is regarded as the inventor of a panacea. In the science of diseases (nosology) they made much progress, and learned how to treat judiciously various kinds of sickness. To their famous writers on medicine belong Aharum (who first described the small-pox), Jahiah Ibn Serapion, Jacob Ibn Ishak Alkendi, John Mesve, Rhazes, Almansor, Ali Ibn Abbas, Avicenna (who published the Canon of Medicine, for a long time the best work of the kind), Ishak Ben Soleiman, Abulcasis, Aben Zohar, Averroes (the author of a compendium of physics). It cannot be denied, that honor is due to the Arabians for having maintained the scientific knowledge of medicine during the middle ages, and revived the study of it in Europe. If physics made less progress among them, the cause lies in the method of study. This science was treated metaphysically, in order to reconcile the principles of Aristotle with the doctrine of fatality taught in the Koran. Mathematics the Arabians enriched, simplified and extended. In arithmetic, they introduced the use of the ciphers which go under their name, and of decimals, into Europe, and, in trigonometry, sines instead of chords. They simplified the trigonometrical operations of the Greeks, and extended the general and useful applications of algebra. Mohammed Ben Musa and Thebit Ben Corrah particularly distinguished themselves in this department. Alhazen wrote on optics. Nassireddin translated the elements of Euclid. Dscheber Ben Afla wrote a commentary on the trigonometry of Ptolemy. As-

tronomy they especially cultivated, for which famous schools and observatories were erected at Bagdad and Cordova. As early as A. D. 812, Alhazen and Sergius had translated into Arabic the Almagest of Ptolemy, the first regular treatise on astronomy, of which, in 833, Alfargani, and, still later, Averroes, published editions. Albaten, in the 10th century, observed the motion of the aphelion. Mohammed Ben Dscheber noticed the obliquity of the ecliptic, and completed a theory of the sun. Almansor formed astronomical tables, in which appear some observations on the obliquity of the ecliptic. Alpetragius wrote a theory of the planets. Geography was brought into connexion with mathematics and astronomy, and treated scientifically, particularly by Abulfeda. The division of the earth into 7 climates, various geographical measures and the like, belong to the Arabians. Much as the severer sciences were cultivated, the genius of the people for poetry was not fettered. Abu Temam, in 830, collected the greater Hamasah, an anthology in 10 books, and Bochteri, in 880, the lesser Hamasah, as a supplement to the other. These contain the 7 prize poems of the *Moallakâth*. After this period, the oriental peculiarities of Arabian poetry became more and more strong, the tone grew mystical and extravagant, and the language lost its purity. Motenabbi deserves to be noticed for his tender elegies in a classic style; (see *Proben der Arabischen Dichtkunst*,—Specimens of Arabic Poetry,—by Reiske, Leipsic, 1765; and *Motenabbi*, translated [into German] completely, for the first time, by Joseph Hammer, Vienna, 1823;) Abu Ismael Tograi, vizier of Bagdad, for his elegies and poems (see *New German Mercury*, 1800, No. 1. sect. 8); Ithiel Hariri, for his history of a knight errant, entitled *Makamat*, in 50 chapters (see Rosenmüller *On an Arabic Romance of Hariri*, Leipsic, 1801, translated, 1826, by Rückert); Abu Dschaafar Ibn Tophail, for his interesting philosophical romance, the *Natural Man*, translated by Eichhorn, Berlin, 1783. Admai's great heroic romance, *Antar's Life* (see *Antar*), is still said to produce amusement in the coffee-houses of Aleppo. It is written in 35 parts.—The dramatic excepted, there is no sort of poetry which the Arabians have left unattempted. The ballad, a production of the bold and adventurous spirit of the nation, was invented by them. There is no doubt that they had, by this means, a powerful effect on modern European po-

etry; for no small share of the romantic poetry of the middle ages belonged to the Arabians. The adventurous, chivalrous spirit, the tales of fairies and sorcerers, and perhaps, also, rhyme, passed from the Arabians to our western poetry. Thus this nation, in the period of the middle ages, contributed, in various ways, to the literature and the refinement of Europe, and left behind many traces of its former superiority. Hence the importance of their language to learned inquirers must appear evident to all. No one can do without it, who would take an accurate view of knowledge and human character. It belongs to the *Semitic dialects*, so called, among which it is distinguished for its antiquity, richness and softness. By the Koran it was fixed as a written language, and, a short time after Mohammed, and still more since the 10th century, among the Arabian authors, who established the principles of the language, its beauties were explored, and its wealth collected in dictionaries. By the entrance of the Arabians into Sicily and Spain, their dialect became known in Europe. But, notwithstanding it has left many traces in the languages of those countries, the knowledge of it has been mostly lost since the expulsion of the Moors from Europe. Postel again introduced the scientific study of it into France, and Spey into Germany. In the 17th century, it flourished in the Netherlands, and was afterwards zealously pursued in Germany, Holland and England. We have valuable grammars by Erpen, Michaelis, Richardson, Jahn, Rosenmüller, de Sacy; good dictionaries by Erpen, Golius, Giggeji, Castell, Meninski, Wilmet, Scheid; collections of extracts by Reiske, Hirt, Rosenmüller, Jahn, de Sacy, Savary and others. Kirsten, Schultens, Jones, Eichhorn, Tychsen, Schnurrer, Hasse, Kosegarten, Hezel, Wahl, Paulus, Rosenmüller, Vater, Augusti and others have done the world important services, by their great cultivation, investigation and illustration of the language. Gruner and Sprengel have shown how important the knowledge of it is to physicians. In fine, the remains of Arabian architecture, in Spain and Africa, deserve the attention of travellers. The French architect P. Coste, in 1818, studied this style, particularly in Cairo and Alexandria. Thence arose his work, *Architecture Arabe, ou Monuments du Caire, dessinés et mesurés*, with 74 engravings, fol., Paris, 1823.

ARABIAN NIGHTS, or the THOUSAND AND ONE NIGHTS; a celebrated collection

of Eastern tales. The East is the ancient and native country of fabulous histories. The ever-active fancy of the people, their love of adventures, their belief in spirits, and their fondness for lively stories, are attested by numerous travellers. This character appears in the amusements of their coffee-houses and caravansaries. It gave rise (perhaps first in India and Persia) to those thousand fables, which, contrary to Mohammed's express command, found in Arabia a second home, and were spread, with alterations and improvements, first separately, and afterwards in large collections, through all Europe. Many of them found their way thither in the time of the crusades or sooner. They were the inexhaustible fountains which supplied the writers of the French *fabliaux*, and the story-tellers and fabulists of Germany. In the beginning of the 18th century (1704), the collection which had long existed in the East, under the above title, was introduced to the literary men of Europe, and, in a short time, to the public generally, by means of the translation of Ant. Galland, a distinguished French Orientalist. Its appearance was hailed with universal delight, and it became one of the most popular works in all Europe. The manuscript of Galland, now in the royal library at Paris, was incomplete. The interest inspired by the work led to more careful investigation; and, in the year 1788, appeared at Paris the *New Thousand and one Nights*, by Chaouis and Cazotte, from a manuscript deposited in the royal library by the former, who was a native Arab. The genuineness of the book was, at first, suspected, on account of the freedom which the editors used with the original; but the suspicion was afterwards proved to be without foundation. Much is due, however, to Caussin de Perceval, the successor of Galland in the chair of the Arabic professorship, who made a new version, in 1806, from the original text, and to the improved copy of Galland added the conclusion of the whole. But many defects still remained, and many lost passages were yet to be found. The work, however, was not rendered complete by the improved translation of Jonathan Scott, in 1811, nor by the last edition of Galland's *Mille et une Nuits*, prepared by Gautiers, aided by Langlès, and published in 1822. It was reserved for the German literati to put a finishing stroke to this rich collection, by the use of manuscripts before unknown. In 1823—4, appeared a German translation, superintended by

Zinserling, of a splendid collection of new tales, which had been found at Rosetti, in Egypt, and a French translation of which had been unaccountably lost. The German translation was ushered into the world by Mr. von Hammer. Still more valuable was a Tunisian manuscript in the possession of professor Habicht, of Breslau, by the assistance of which every defect was corrected, and, with the advice of two other learned men, a German translation was made, far excelling every previous one—*Tausend und eine Nacht, vollständig übersetzt, von Max. Habicht, v. der Hagen und K. Schall*, (the Thousand and one Nights, translated in full, by Max. Habicht, v. der Hagen and K. Schall), 15 vols. 12mo. Breslau, 1825; also the original Arabic was published by doctor Habicht, with a glossary, in 1 vol., Breslau, 1825. A Danish translation of the Arabic text, printed in Calcutta, in 1814, has been published by Rasmusen, professor of Oriental languages at Copenhagen (1st vol., Copenhagen, 1824). With these exertions to restore to its original beauty and value one of the most remarkable monuments of Eastern manners, inquiries into the origin of the Arabian Nights were also prosecuted with success. It was easy to show that the position maintained by Caussin, that the work was a production of the 16th century, was untenable, and every other hypothesis which considers them as all composed at the same time. Von Hammer certainly took a more correct view of the subject. It was his opinion, that these fables sprung up in the soil of India, were afterwards transplanted to Persia, and finally made Arabian property by a translation into that language, in the time of the caliph Al Mansur, about 30 years before the time of Haroun al Raschid, the contemporary of Charlemagne. After a time, new branches, native and exotic, were grafted upon this original stock, which soon sent forth new shoots, like the parent tree. And no one can doubt the reasonableness of this opinion, who knows that stories of this sort allow of the introduction of every circumstance and every event in any way connected with the subject of the tale; and, in fact, it is plain, that many of these fables have a later origin and another home. According to Jonathan Scott, no two manuscripts in different countries agree; the copies found in every nation are corrupted by the traditions of the people. The story which forms the point of union among the Thousand and one Nights is

as follows:—The sultan Schahriar, exasperated by the faithlessness of his bride, made a law, that every one of his future wives should be put to death the morning after marriage. At length one of them, named *Sheherazade*, the generous daughter of the grand vizier, succeeded in abolishing the cruel custom. By the charm of her stories, the fair narrator induced the sultan to defer her execution every day till the dawn of another, by breaking off in the middle of an interesting tale which she had begun to relate. Thus passed a thousand and one nights,—two years and nine months,—and, in the course of this period, *Sheherazade* became the mother of three children. These she led before the throne of her husband. The stern monarch was melted by her tears; he clasped his wife and children to his bosom, gave *Sheherazade* her life, and required of her no return, but the frequent relation of some of those tales, which had often kept him fascinated with delight at her side. Only a part of this story was known to the first French translator of the work; the conclusion was unknown till von Hammer discovered the circumstances just related, and laid them before the world. The delight felt by Schahriar has been felt by thousands more of his own faith, and still continues in the greatest part of Asia, in Egypt, and along the southern shores of the Mediterranean. It has been spread by the translations through the countries of Christian Europe, and will continue as long as men delight in the phenomena of a mysterious world, summoned up by the magic of an innocent and playful imagination. Most of the Arabian tales aim merely to delight the fancy, yet many of them contain much knowledge of mankind, and sometimes acute delineations of the hidden passions and vices of man's heart, and much practical wisdom. They are doubly interesting to the European reader, because they place before us, in a far more striking light than travellers can do it, all the peculiarities of the Eastern nations. The fearless courage of the Arab knight, his propensity to bold adventures, his dexterity and skill, his love and his revenge, the cunning of the women, the hypocrisy of the priests, the venality of the judges,—all stand before us in full relief. Golden palaces, beautiful women, splendid gardens and rich banquets captivate our senses, and fetter us to a soil in which we delight to view the shadowy forms of a foreign world of fancy. Besides this, the poetical language of many

passages, and the great *naïveté* of the whole, cannot but interest the reader. If we were to give an idea of the Arabian Nights by pointing out its very antipode in literature, we would mention Dante's *Divina Commedia*. Both are creations of the boldest fancy; but the latter is grave, sometimes harsh, reflective, and speaks design throughout; the former, playful, *naïf*, sometimes childish, exhibiting the natural flow of a lively imagination. There are, however, some truly and deeply tragical tales among them; we only mention that of Ali Ebn Becar and Schemselnihar.—The pleasure inspired by the Arabian Nights soon gave rise to numerous imitations and changes. We ought to mention, among the first, the *Thousand and one Days*; an imitation, in Persian, of the *Thousand and one Nights*. It is less artless than the pattern, and executed with more apparent design. It attempts to remove the prejudices of a king's daughter against men, by recounting numerous examples of honor and faithfulness in that sex. Of the ancient French and German paraphrases, we have already spoken incidentally. Among modern paraphrases, we will mention only *Oehlenschläger's Aladdin*, which is founded on one of the Arabian tales.

ARABIAN SEA; a part of the Eastern ocean, on the southern coast of Arabia.

ARABICI; a sect of Christian teachers who arose in Arabia, in the first half of the 3d century. Their distinguishing doctrine was, that the human soul dies, decays, and rises again, at the same time with the body. Origen refuted and converted them, A. D. 246. Their error took its rise from the opinion, at that time prevalent, of the materiality of the soul.

ARAC, or ARRAC. (See *Arack*.)

ARACATSCHA; a plant; a native of the chain of the Andes, and first discovered in Santa Fé de Bogota (New Grenada, in Spanish South America). It is more nourishing and prolific than the potatoe (*solanum tuberosum*), which grows wild in this country, in the woods of Santa Fé de Bogota, in Peru and Chile. In taste and solidity, the *aracatscha* resembles the Spanish walnut. The soil requires no greater degree of warmth or moisture than is afforded by Europe. In Germany, it was first cultivated successfully in Bamberg or Würzburg. In the 19th page of the *Quarterly Journal of Science, Literature and the Arts* (Oct. 1820), Mr. Lambert gives an account of the *aracatscha* (*heracleum tuberosum* Molina), and

its cultivation in England. James Grey Jackson, in the 20th page of the same journal, asserts that this plant grows also in the country of Sus, on the south side of the Atlas, and is called, by the Arabians, *aracatscha*, or *atscha*, i. e. *dry root*. How did it find its way to America, and maintain its original name there? Had the old Arabians more knowledge of navigation than is commonly supposed? Or shall we believe that a former continent, by name *Atlantis*, has sunk below the ocean, which, before its destruction, formed a connexion between Africa and South America?

ARACHNE, daughter of Idmon, a dyer of purple, at Colophon, in Ionia, had learned from Pallas the art of weaving, and ventured to challenge her teacher to a trial of skill. In vain did the goddess, in the form of an old woman, forewarn her of the consequences of her folly. The contest began, and A. prepared, with much skill, a web which represented the amours of Jupiter. This irritated Pallas, who tore the web in pieces, and struck A. on the head with the shuttle. A. hung herself in despair. The goddess restored her to life, but changed her into a spider.

ARACHNOLOGY, or ARANEOLGY; the art of deciding on the changes of the weather from the motions and works of spiders. Intimations of it appear even in Pliny (H. N., book xi., sect. 28). It is also treated of in the *Éclogie Pratique* (Things of everlasting Value), which appeared at Grolitz in 1588. In later times, Quatremère Disjonval, once member of the academy of sciences at Paris, during an 8 months' imprisonment, in which some spiders were his only companions, made various observations on the subject, and, in 1797, at Paris, made known his discovery of the close connexion existing between the appearance or disappearance, the labor or rest, the greater or less circumference of the webs and fibres, of spiders of different sorts, and the atmospherical changes from fair weather to rain, from dry to wet, and particularly from hot to cold, and from frost to a milder temperature.

ARACK, or RACK; a strong spirituous liquor, distilled from rice, sugar-cane, or the juice of the cocoa-nut. The last, which is the best, comes from Batavia; the others, from Goa. At Goa, there are 3 kinds—single, double, and treble-distilled. The double is most sought, although weaker than the Batavian.

ARAFAT, or GIBEL EL ORPHAT (the mountain of knowledge or of gratitude), in Arabia, near Mecca. The Mohammed-

ans say that it was the place where Adam first received his wife, Eve, after they had been expelled from Paradise, and separated from each other 120 years. On the summit is a chapel ascribed to Adam, rifled, in 1807, by the Wahabees. The mountain not being large enough to contain all the devotees that come annually on pilgrimage to Mecca, stones are set up round it, to show how far the sacred limits extend. The latest description of a celebration is by the indefatigable traveller Burckhardt (q. v.), who visited the place in July, 1814. He estimates the number present at 70,000. The camp covered a space of between 3 and 4 miles long, and from 1 to 2 broad, containing 300 tents and 25,000 camels. In this Babel, he reckoned about 40 languages, and had no doubt there were many more. The sermon delivered on the mount constitutes the main ceremony of the Hadj, and entitles the hearer to the name and privileges of a Hadjy. The hill is about 200 feet high, with stone steps reaching to the summit. After concluding the ceremonies at A., the pilgrims set out for Mecca, passing through the valley of Muna, on their return, in which they spend some time in *stoning the devil*. This ceremony consists in throwing stones against small pillars set up at each end of the valley. Each completes 63 jaculations. 6 or 8000 sheep and goats are then sacrificed. The third day brings them back to Mecca, where some further ceremonies finish the festival.

ARAGO, Dominique-François, born at Estagel, in Perpignan, Feb. 28, 1786, as early as 1804, was an instructor in the polytechnic school. In 1805, he became secretary of the *bureau des longitudes*. With Biot, and the Spanish commissaries Chaix and Rodriguez, after Delambre and Méchain had measured the arc of the meridian between Dunkirk and Barcelona, he continued the measurement to the island Formentera. When the French army entered Spain, A. was imprisoned by the Spanish officers, and remained several months in Rosas. Attempting to return to France by sea, he was taken and carried to Algiers by a corsair. In 1809, the then French consul procured his freedom. He had, fortunately, preserved his apparatus, and all his observations and calculations. The latter formed a continuation of the *Base du Système métrique*, published before, by the institute, under the following title: *Recueil d'Observations géodésiques, astr. et phys., exécutées par Ordre du Bureau des Longi-*

tudes, en Espagne, pour déterminer la Variation de la Pesanteur et des Degrés terrestres sur le Prolongement du Méridien de Paris; réd. p. Biot et Arago; 4to. A. took the place of Lalande in the national institute, and, in 1816, became a member of the 3d class of the academy of sciences. At present, he is principally devoted to physics, particularly to investigations relating to the theory of light and galvanism.

ARAGON, Tullia d', a poetess of the 16th century, descended from an illegitimate branch of the royal family of Spain. Her father, Pietro Tagliava, cardinal d'Aragon, whose natural daughter she was, placed her first at Ferrara, and afterwards at Rome, where her fine talents received the highest degree of cultivation. Her works which remain are, "Rime," in one 8vo vol. printed in 1547; *Dialogo dell' infinito d'Amore*, which appeared in the same year; and *Il Meschino o il Guerino*, 4to., in 1560. Her beauty and accomplishments were the theme of several poets. She died, near Florence, at the end of the 16th century.

ARAGON, kingdom of. (See *Arragon*.)

ARAL; next to the Caspian sea, the largest inland collection of water in Asia. It was unknown to the ancients. It lies amid the plains of the Turcomans and Kirghises. Its length is estimated at 250 miles, and its greatest breadth at 120. Its water is salt, like all standing collections without an outlet. It receives the Oxus and the Jaxartes, and contains a multitude of sturgeons and seals. It is encircled by desert, sandy heaths, and its sandy shores are without harbors. Evaporation, as there is no outlet, seems to draw off its water. It lies very low, and is surrounded by many small lakes and morasses, but no hills. It was once, probably, united with the Caspian sea, the eastern coast of which is separated from the western coast of the A. only by 80 miles of low, sandy and marshy lands. Both ends of these seas, where they approach each other, are very shallow. The A. is full of islands, which, like its banks, are without inhabitants.

ARAM, Eugene, a man of considerable learning, and remarkable for his unhappy fate, was born in Yorkshire, 1704. His education consisted in learning to read; but, being of a studious disposition, he made great progress in mathematical studies and polite literature, by his own unaided exertions. He acquired the Latin and Greek languages, reading all of the Roman and most of the Greek classics,

and also became acquainted with the Oriental and Celtic tongues. The most extraordinary event of his life was the murder of Daniel Clark, a shoemaker, with whom he had been before concerned in some fraudulent practices. The murder was concealed 14 years, and was then accidentally discovered. His wife, from whom he was separated, was the principal witness against him; and, after an able defence, which he read to the court, he was found guilty. After his conviction, he confessed the justice of his sentence, and alleged his suspicion of an unlawful intercourse between Clark and his wife, as his motive for the commission of the murder. He attempted to end his life, while in prison, by bleeding, but was revived and executed.

ARANDA (don Pedro Pablo, Abarca de Bolea) count of; born 1719, of a distinguished family in Arragon. He devoted himself to military pursuits; but, as he discovered a remarkably penetrating spirit, Charles III appointed him his minister at the court of Augustus III king of Poland, an office which he held 7 years. After his return, he became governor-general of Valencia. In 1765, the king recalled him, in consequence of an insurrection that broke out in Madrid, and appointed him president of the council of Castile. A. not only restored order, but also effected the expulsion of the Jesuits from the kingdom. The influence of Rome and the priests, however, succeeded in inducing the king to send him on an embassy to France. In Paris A. lived 9 years; then returned to Madrid, as counsellor of state, and lived in a sort of disgrace, till the queen, not contented with the count Florida Blanca, in 1792, gave his place to A. Some months after, he was succeeded, greatly to the displeasure of the court and nation, by don Manuel Godoy. (q. v.) A. continued president of the council of state till he declared his opinion respecting the war against France, when he was banished to Arragon. He died here, A. D. 1794, leaving a young widow, and no children. Madrid was obliged to him, in a great degree, for its security, good order, and the abolition of many abuses.

ARANJUEZ; a village and palace, with splendid gardens, beautiful walks shaded with elms, and a park for hunting, in the Spanish province of Toledo, in a charming shady vale of the Tagus, which receives here the waters of the Xarama; 30 miles from Madrid, to which a Roman road, built by Ferdinand VI., leads; every

mile of which cost 3,000,000 reals, about 147,000 dollars. A. lies in lon. $3^{\circ} 36'$ W., lat. $41^{\circ} 5'$ N. The court usually resides here from Easter till the close of June, when the number of people increases from 2600 to about 8000. Charles V. marked out this vale as the seat of a royal residence. Philip II. founded the palace and garden. His successors, particularly Ferdinand VI., Charles III., and Charles IV., improved and greatly enlarged it. The village is built in the Dutch style; and has broad and straight streets, which cut each other at right angles. The palace has marble stairs, superb mirrors from the manufactory of St. Ildefonso, rich works of art; and both the church and the monastery are adorned with many fine paintings by Spanish and Italian masters. The *casa del labrador* was designed by Charles IV. with great richness and splendor. The palace of A. has been often celebrated by Spanish poets, and is renowned for its gardens, shaded walks and water-works. The gardens are in the form of a star. The chief walk, overshadowed by elms, is 600 or 700 paces long, 12 feet wide, and is bordered by a quick-set hedge. Every 70 or 80 paces, there are resting-places, in the form of a hexagon, cooled with fountains. 12 passages, shaded by elm-trees, unite in forming a large, round area. The royal stud, the herds of mules and buffaloes, the grounds under tillage, the orchards and gardens here, were formerly in a good condition. There is a fountain in the neighborhood, from which a sort of Glauber's salts is obtained. A. has become celebrated, of late years, by the revolution of March 18, 1808. (See *Spain*.)

ARARAT; a mountain in Armenia, in the pachalic of Erzerum. It stands on an extensive plain, and is connected by low hills with mount Taurus. Its summit, covered with perpetual snow, in the form of a sugar-loaf cut into 2 peaks, presents a formidable appearance with its craggy cliffs and deep precipices. Its highest peak, Mazis, is in the Persian province of Iran, rising to the height of about 9500 feet. It is the greatest elevation in the whole region, whence sacred history affirms that Noah's ark settled upon it.

ARARAT, or PILOT MOUNTAIN; a mountain of North Carolina, on the N. side of the Yadkin, about 16 miles N. of Salem. It is about a mile in height, and rises in the form of a pyramid, with an area of an acre at top, on which is a stupendous rock 300 feet high. From the summit of this

rock there is an extensive, variegated and delightful prospect. It is seen at the distance of 70 miles, and served as a beacon or pilot to the Indians in their routes.

ARATUS; a Greek poet, born at Soli (Pompeiiopolis), in Cilicia. He flourished about 270 B. C., was a favorite of Ptolemy Philadelphus, and a firm friend to Antigonus Gonatas, son of Demetrius Poliorcetes. We know him only from his poem *Phænomena*, in which he has given us, in correct and elegant verse, all that was then known of the heavens, with their signs and appearances, although there is reason to believe that he was not himself an astronomer. The esteem which the ancients had for this work, appears from the fact that it was translated by Cicero, Cæsar Germanicus and Avienus. Eratosthenes, with many other great astronomers, wrote commentaries on it. The best editions are by Fell, Oxford, 1672; by Buhle, Leipsic, 1793—1801, 2 vols.; and by Matthiæ, Frankfurt, 1817—18. It has been translated into German by J. H. Voss, Heidelb., 1824, and published with the Greek text and illustrations.

ARATUS of Sicyon, son of Clinias, was born 273 B. C. His father fell in a tumult excited by Abantidas, and A. fled, without knowing it, into the house of the tyrant's sister, who, struck with the circumstance, saved the life of the boy, then 7 years old. Afterwards he was sent to Argos, and the exiles from Sicyon expected in him their future restorer. When he had scarcely reached his 20th year, he delivered Sicyon from the tyrant Nicocles. He would not stain the liberty of his native city with the blood of any citizen, but met with much difficulty in the administration of affairs, as, besides a large party in the city, the king of Macedon also espoused the cause of the deposed Nicocles. Under these circumstances, he deemed it best to join Sicyon to the Achæan league,—the only remaining support of freedom in Greece. By his influence with Ptolemy, king of Egypt, he obtained a sum of money sufficient to settle the various claims of the returned citizens, and, being vested with the supreme constitutional power in Sicyon, he governed with justice and moderation. In due time, being made general of the Achæan league, he recovered the almost inaccessible fortress of Corinth from the king of Macedon, by a plan which is one of the most admired instances of ancient military stratagem. In the end, however, owing to a hostile league against the Achæans between the Ætolians and Spartans, A., in opposition

to his own principles, was obliged to call in the assistance of Antigonus, king of Macedon. This turned the tide of affairs for a while, but, on the death of Antigonus, similar difficulties occurring, his successor, Philip, was in the same manner called to the aid of the Achæans. At first, Philip highly esteemed A., but was gradually estranged from him, and it was thought that he had caused a slow poison to be administered to him, for A., spitting blood in the presence of a friend, exclaimed, "Behold the friendship of kings!" He died in his 57th year, 216 B. C., and was interred with the highest honors. A. was one of the most virtuous and noble-minded men that shed lustre on the declining days of Greece. Polybius speaks in high terms of Commentaries, written by A. on his own actions and the affairs of the Achæans, which, it is much to be regretted, have not reached posterity. The chief materials for his history are to be found in Polybius and Plutarch.

ARAUCANIANS. This is a South American nation, of 400,000 inhabitants, in the southern part of Chile. They occupy a territory containing 64,000 square miles, and stretching from 33° 44' to 39° 50' of S. lat. They have maintained their independence against the Spaniards to the present time. Bounded on the N. by the river Bio-Bio, on the S. by the river Galacallay, on the E. by the Andes, and W. by the Pacific ocean, they live under a free, though aristocratical form of government, agreeably to common laws and customs. They dwell in villages, and employ themselves in agriculture and raising cattle. The woollen dress of the men is a shirt and a dark-blue mantle; the women wear a mantle and a long petticoat. The freemen live in huts. Vegetables form their principal food. Polygamy prevails among them, yet the domestic affairs are managed by the women. Their language is allied to the Patagonian. One of the 4 toquis (high hereditary nobility) conducts the public affairs. If he does not, however, enjoy universal respect, the ulmenes, or hereditary nobility of an inferior class, displace him, and substitute one of their own number. Distinguished knowledge and boldness must be shown by the nobility, to excite respect. The general appoints his own lieutenant, who, in his turn, appoints another for himself. Thus every inferior rank is dependent upon the one above it, yet not on the supreme power. In establishing laws and determining in military operations, every A. has a voice. The executive power, however, is not

bound by expression of the popular opinion. Till 1551, the A. fought only on foot, and then, for the first time, they learned the value of cavalry. Now they have many horses, and, on their marches, each rider carries a foot-soldier behind him, so as to advance with more speed. In battles, the cavalry are posted on both wings. The lieutenant-general, vice-toqui, commands one of the wings. In the middle stand the infantry, armed with clubs or spears. They are, likewise, well skilled in the use of fire-arms. In their battles, a portion of the warriors usually remain behind as a *corps-de-reserve*. The A. advance to an attack with a hideous noise. In the revolutionary struggle of the South American states, the toqui of the A. resolved upon neutrality, which he honorably maintained.—*Araucana*; an epic poem of Ercilla. (See *Ercilla*.)

ARBELA, now *Erbil*; a small place in Eastern Assyria, renowned for a decisive battle fought by Alexander the Great against Darius, at Gaugamela, in its neighborhood, B. C. 331.

ARBITER; a name applied among the Romans, 1. to a judge, whom the prætor had commissioned to decide a controversy pending before him, according to the principles of equity (*ex æquo et bono*); 2. to a person to whom the contending parties had committed the decision of their dispute, without the interference of a magistrate, by an agreement partly with one another (*compromissum*), partly with him (*receptum*); finally, 3. one whom the contending parties had only consulted, with the design of his drawing up terms of settlement, without binding themselves to assent to them. To an arbiter, in the first signification, decisions were committed by the prætor only in affairs of trust and confidence (*in negotiis bonæ fidei*), not in cases of strict right (*in negotiis stricti juris*). In the latter cases, the prætor appointed a judge (*judex pedaneus*) who was to decide according to a strict rule (*formula*) which was given to him. In this threefold signification, the arbiters (*diacritai*) among the Athenians are comprehended. From the arbiter comes the *arbitrator*, i. e. one to whom the deciding judge proposes questions depending on scientific or technical knowledge, which affect the decision of the dispute. From the opinions of such a man, the parties may appeal to the opinion of a third (to a *reductio ad arbitrium boni viri*). But as soon as they have committed the decision to a third by an agreement (*compromissum*), and the commission (*receptum*) has been

received by him, they must submit to his decision. His sentence (*arbitrium*, or *ludum*) can only be assailed when something fraudulent, e. g., bribery, can be proved against him. In the opinion of many learned jurists, however, it may be called in question in case of a great though unintentional violation of justice (*propter lesionem enormissimam*). Justinian established a distinction between the decision to which the parties subscribe, or which they approve by a silence of 10 days, and that against which they have protested within 10 days. The former is called *arbitrium homologatum*; the latter, *non-homologatum*. The latter, according to him, ought to have no legal force.

ARBITRATION. Parties may submit a dispute to arbitration either orally or in writing, and, in either case, the award, when properly made, will be binding on the parties. The submission is in the nature of a commission by both parties to the arbitrators to determine the subject in dispute. If either revokes this authority before the award is made, the award will not be binding upon the party so revoking. But if the submission were by bond or covenant, or in writing, and, in some cases, if it were merely oral, the other party will be entitled to damages against the party so revoking, for the breach of his agreement to submit the matter in dispute to arbitration. General agreements to submit disputes that may arise, such as those contained in policies of insurance, are not binding by the laws of the U. States nor by those of England. Similar agreements are, however, binding in Germany, and some other parts of the continent, where articles of copartnership frequently contain a clause to submit disputes between the partners to arbitration; and wills often contain a provision that disputes among the legatees and devisees shall be so settled. In submitting disputes under these stipulations, the parties sometimes take an oath to comply with the award, or they agree upon a penalty for not complying. Each is binding. One reason for not giving effect to such general agreements, in England and the U. States, is, that it substitutes other tribunals in the place of those established by the laws of the country, which may be done in case of a dispute that has actually arisen, but not by a general and prospective agreement. The laws of most countries, however, favor the settlement of disputes by arbitration. The parties may agree in court to refer their case to arbitration, and the judges will recognise

the agreement. For the purpose of encouraging arbitrations, the laws of many if not all of the U. States provide the forms and proceedings in relation to them. The object of these statutes is to provide a way of making a binding submission, procuring a valid award, and securing its ready execution. Crimes cannot be made the subjects of adjustment and composition by arbitration, for the public is here one party; but the personal injuries and pecuniary damage resulting from crimes or breaches of the peace may be made subjects of reference. As to the persons who may agree upon a submission, any one may do so who is capable of making a disposition of his property, or a release of his right; but one under a natural or civil incapacity cannot, as a married woman or minor. The arbitrators chosen by the parties are often authorized to choose an umpire, in case they disagree; but in some of the general stipulations for reference in Germany, the umpire is agreed on beforehand by the parties. As an arbitrator is a judge who receives a commission from the contending parties, it must be left to them to decide on his qualifications, and the laws do not generally make any specific provisions on this subject. If, however, it appears that the arbitrator was interested, and his interest was unknown to one of the parties, or that he was bribed, or that any other strong objection lay against his acting as arbitrator, exception may be made to the award on that account. The provisions of various statutes for carrying awards into execution, and the exceptions that may be made to them on the ground of interest, circumvention, mistake or informality, are too numerous to be stated particularly.

ARBUTHNOT, John, an eminent physician and distinguished wit, was born in Scotland soon after the restoration, but in what year is uncertain. He received the degree of doctor of physic at the university of Aberdeen, and engaged in the business of teaching mathematics in London, where he soon distinguished himself by his writings and by his skill in the practice of his profession. In 1704, he was chosen fellow of the royal society, and soon after appointed physician extraordinary, and then physician in ordinary, to queen Anne. About this time he became intimate with Swift and Pope, and this brilliant triumvirate formed the plan of a satire on the abuses of human learning. But the completion of this design was interrupted by the death of the queen,

and we have only an imperfect essay, under the title of *Memoirs of Martinus Scriblerus*. The death of queen Anne made such an impression on doctor Arbuthnot, that, to divert his melancholy, he visited Paris, and, on his return, was deprived of his place at St. James's. He continued, however, the practice of his profession, and, in 1723, was chosen 2d censor of the royal college of physicians, and afterwards an elect of the same college. Being afflicted with an asthma, which, having increased with his years, was at last become incurable, he retired to Hampstead for relief; but, being sensible that his disease was mortal, he returned to London, where he died in 1735.—The principal works of doctor Arbuthnot are, an Examination of Doctor Woodward's Account of the Deluge, 1697, and an Essay on the Usefulness of Mathematical Learning, which were the foundation of his literary reputation; the Table of Ancient Coins, Weights and Measures, explained and exemplified, in several Dissertations, which appeared in 1727; the treatise of the Nature and Choice of Aliments, 1732; and that of the Effects of Air on Human Bodies, 1733. In these he displays his solid and extensive learning. His treatise on the Altercation of the Ancients, his History of John Bull, his contributions to Martinus Scriblerus, and other pieces usually published in Swift's works, are equally distinguished for ingenuity, wit and exquisite satire. His epitaph on Chartres is a masterly composition in its kind. The following sketch of his character, from doctor Johnson's life of Pope, is justified by the testimony of his contemporaries and of his works:—"A. was a man of great comprehension, skilful in his practice, versed in the sciences, acquainted with ancient literature, and able to animate his mass of knowledge by a bright and active imagination; a scholar, with great brilliance of wit; a wit, who, in the crowd of life, retained and discovered a noble ardor of religious zeal; a man estimable for his learning, amiable for his life, and venerable for his piety." His miscellaneous works have been published in 2 vols. 12mo., with a memoir of his life prefixed.—Another A., of the name of Alexander, was an active supporter of the reformed church of Scotland. He was born in 1538, and died in 1583.

ARC, Jeanne d'. (See *Joan of Arc*.)

ARCADIA; the middle and highest part of the Peloponnesus; the Greek Switzerland; bounded on the north by Achaia

and Sicyon, on the east by Argolis; on the south by Messenia, and on the west by Elis. It is rich in rivers, springs and pastures, and is watered by the Eurotas and Alpheus. The principal mountains were called *Cyllene*, *Erymanthus*, *Stymphalus*, and *Manalus*. From its first inhabitants, the Pelasgi, the land derived the name *Pelasgia*. In later times, it was divided among the 50 sons of Lycaon, and received from his grandson, Arcas, the name *Arcadia*. In the course of time, the small kingdoms made themselves free, and formed a confederacy. The principal were, Mantinea, where Epaminondas obtained a victory and a tomb (now the village of Mondi), Tegea (now Tripolizza), Orchomenus, Pheneus, Psophis and Megalopolis. The shepherds and hunters of the rugged mountain country remained for a long time in a savage state. By degrees, they acquired the rudiments of civilization, began to cultivate their fields, and to amuse themselves with dancing and music. At the same time, they always remained warlike, and fought, when they had no wars of their own, in the service of other states. Their chief deity was Pan; their chief business, breeding of cattle and agriculture. This occasioned the pastoral poets to select Arcadia for the theatre of their fables. Thus it has been made to appear as a paradise, although it was far from deserving this character.

ARCADIANS, Academy of the; a society of Italian poets in Rome, established in the latter half of the 17th century, for the improvement of taste and the cultivation of Italian poetry. The whole constitution of the society had as its object the imitation of the pastoral life of the Arcadians. Hence their meetings are held in gardens, and every member adopts the name of a Greek shepherd, by which he is called in the society. Under these names the poems of the members are usually published. The laws of the society are drawn up after the model of the 12 Roman tables: the most important are, that the society shall have no patron, and that no poems are to be read which are contrary to religion and good morals. The device of the society is the syrinx (the ancient shepherd's pipe), entwined with pines and laurels. Only poets (without distinction of sex, however) can be members of it. Formerly, the society enjoyed much respect, and it was an object of ambition to obtain admission to it; but this is no longer the case. In imitation of the chief society in

Rome, societies for the same purpose were instituted in several Italian cities. Crescimbeni (q. v.) has published collections of the poems of this association, and biographies of several of its members. In 1824, Leo XII, under the name of *Leo Pistate Cecropio*, was admitted a member.

ARCANUM; a secret; especially a secret remedy, or a medicine of which the ingredients and preparation are kept secret. Such medicines, on account of numerous abuses, have been made, in some countries, an object of medical police. In the time of alchemy, there were many celebrated arcana.

ARCE, Manuel José, was elected first president of the republic of Central America, and entered upon the duties of his office at the organization of the republican government in April 1825. The salary assigned him by congress was 10,000 dollars; and his term of office is fixed at four years by the constitution. (For the history of his administration, see *Central America*.)

ARCESILAUS; the founder of the second or middle academy; born at Pitane, in Æolis, in the first year of the 116th Olympiad, B. C. 316; was carefully educated; and sent to Athens to study rhetoric, but philosophy attracted him more. He enjoyed the instructions of the Peripatetic Theophrastus, then of Polemon, and, after the death of Crates, stood at the head of the academy, but made important innovations in its doctrines. Plato and his successors had distinguished two kinds of objects—material, which act upon the senses, and those that are only comprehended by the mind. Our notions of the former, they say, compose opinion; of the latter, knowledge. Arcesilaus, who approached to scepticism, or rather went beyond it, denied that a man knows any thing—even the fact that he knows nothing. He rejected as false and delusive the testimony of the senses, and accordingly maintained, that the truly wise man can maintain nothing. In this way he was able to combat all opinions. As he was obliged, however, to reconcile these strange maxims with the necessities of life, imposed alike on every being, he said their strict application was admitted only in science, and that a man may even adhere to what is only probable in the present life. Moreover, he was kind to the distressed, and a friend to pleasure. A rival of Aristippus, he divided his time between Venus, Bacchus and the Muses, without ever filling a public office. He

died, from intemperate indulgence in wine, 75 years old, in the 4th year of the 134th Olympiad.

ARCH, in building. (See *Architecture*.)

ARCH (from the Greek prefix *ἀρχι*); a syllable which is placed before some words, in order to denote the highest degree of their kind, whether good or bad, e. g., *archangel*, *archduke*, *archchancellor*, *archbishop*, *archspirit of evil*, *archfiend*, *archflatterer*, *archfelon*, &c. Many of the highest officers in different empires have this syllable prefixed to their titles, and, in the German empire, the arch-offices (*erzämter*), as they were called, were of high importance. They were established in France, by the same constitution which conferred the imperial dignity on Napoleon.

ARCHAISM; an antiquated word or phrase. In general, the use of archaisms is objectionable, but in certain kinds of writing, and particularly in poetry, they may even be an ornament, as they are often peculiarly forcible.

ARCHANGEL; the chief city in a Russian district of the same name, which contains 356,400 sq. miles, with 263,100 inhabitants, among whom are 7000 Samoyedes. It lies between 20 and 30 miles from the mouth of the Dwina, on the White sea; lon. 40° 43' E.; lat. 64° 32' N.; contains 1900 houses and 15,100 inhabitants. The monastery of Michael the archangel, founded there in 1584, gave the city its name. The English first discovered a passage thither through the Frozen ocean, A. D. 1553, and, until the building of Petersburg, A. was the only port from whence the productions of Russia were exported. When Petersburg became a place of export, and Riga also was used as a Russian port, the trade of A. sunk till 1762, when queen Elizabeth granted to it all the privileges of Petersburg. The trade on the Dwina has since increased more and more with the growing population of Russia; and A. has become the chief mart of all imports and exports for Siberia, being connected by canals with Moscow and Astrachan. In June or July, foreign vessels arrive, which sail again in the last of September or October. In these summer months, there is a perpetual market for fish, fish-oil, tallow, grain, various sorts of fur, skins, ship-timber, wax, iron, coarse linen, hogs' bristles, china and japaned wares, caviare, sturgeon, &c. More than 200 foreign vessels arrive annually; in 1823, 230 sailed. The trade is seriously obstructed by a sand-bank, affording only 12½ feet of water,

at the entrance of the harbor, which is in other respects good. The fortification of Novo-Dwiesk protects the entrance. There are now dock-yards here for ships of war, which are built by the Russian government in A. as cheap or cheaper than they can build them in any other place; also an excellent ware-house for foreign merchandise subject to a duty. In April, the ice breaks up at the mouth of the Dwina, on the banks of which, 65° N. lat., the vegetation of grain and fruit entirely ceases. Seventeen versts from the city is the anchoring place of ships, with three docks. A civil and military governor, and an archbishop, reside at A. The house of the admiralty and the barracks of the soldiers are situated on the island Solombol, formed by the river Cuschenida. In 1816, the value of imported goods subject to duties was 1,138,000 rubles, and of the exports, 8,600,000 rubles. The shortness of the nights, during the time the harbor is navigable, presents a natural obstacle to smuggling. The shortest day is 3 hours and 12 minutes long. Many expeditions, every year, for fishing and hunting, go from this place to Spitzbergen and Nova Zembla, by water in summer, and by sledges in winter, to the mouth of the Lena, and perhaps farther.

ARCHBISHOP (from the Greek; in Latin, *archiepiscopus*); a metropolitan prelate, having several suffragan bishops under him. In Catholic countries, the archiepiscopal chapters elect the archbishop, who is confirmed by the pope. The establishment of this dignity is to be traced up to the earliest times of Christianity, when the bishops and inferior clergy met in the capitals to deliberate on spiritual affairs, and the bishop of the city where the meeting was held presided. Certain honors were allowed him, the title of *metropolitan* particularly, on account of his residence. The synod of Antioch gave the archbishops, in the year 341, the superintendence over several dioceses, which were called their *province*, and a rank above the clergy of the same, who were obliged to ask their advice in some cases. By degrees, their privileges increased; but of these the pope has retained many since the 9th century, so that only the following were left to the archbishops:—jurisdiction, in the first instance, over their suffragan bishops, in cases not of a criminal nature, and appellate jurisdiction from the bishops' courts; the right of convoking a provincial synod, which they were required to do at least once in every three years,

and the right of presiding in the same; the care of enforcing the observance of the rules of the church, of remedying abuses, of distributing indulgences; the right of devolution (q. v.), of having the cross carried before them in all parts of the province (if the pope himself or a *legatus a latere* is not present), and of wearing the archiepiscopal pallium (q. v.) In England are two (Protestant) archbishops—those of Canterbury and York; the former styled *primate of all England*, the latter, *primate of England*; but with regard to the exact distinctions between these appellations, there is no little obscurity in the books of such as treat upon this subject. In ancient times, the primacy of the archbishop of Canterbury extended to Ireland, as well as England. Hence he was styled a *patriarch*, had the titles of *orbis Britannici pontifex*, and of *papa alterius orbis*. He is the first peer of the realm, having precedence before all dukes not of royal birth. He crowns the sovereign, whether king or queen, and when he is invested with his archbishopric, he is said to be enthroned. The first prelates in England are his officers. He is addressed by the titles of *your grace*, and *most reverend father in God*, and writes himself *by divine providence*, while the bishop only writes *by divine permission*. His jurisdiction extends over 21 dioceses. The first archbishop of Canterbury was Austin, appointed A. D. 598, by Ethelbert, when he was converted to Christianity. Next in dignity is the archbishop of York. He takes place of all dukes not of the blood royal, and all the great officers of the crown, except the lord high chancellor of England. He crowns the queen consort. The first archbishop of York was Paulinus, appointed in 622. The income of these two highest prelates of England has often been misrepresented, one party stating it too high, the other too low. It is certainly very great, though the amount cannot be ascertained. (For the immense salaries of some of the English clergy, and the scanty incomes of the larger portion, see the article *Clergy*.) Scotland had two archbishops—those of St. Andrew's and Glasgow; now she has none. In Ireland, there are four—those of Dublin, Armagh, Tuam and Cashel. In the U. States, there is an archbishop of the Roman Catholic church, whose see is at Baltimore, and whose spiritual jurisdiction extends over all the U. States. There is, as yet, no archbishop of the Protestant Episcopal church, though there are seve-

ral bishops. In the year 1828, pope Leo XII appointed, after much delay, an archbishop in Colombia, whom Bolivar had proposed. Perhaps the two most important archbishops in history were those of Cologne and Mentz. These archbishops were sovereigns of a considerable country, electors of the German empire, and the two highest officers under the emperor. Till Napoleon dissolved the German empire, they played a conspicuous part in the history of the continent. In France, there are now 9 archbishops; in Spain, 8; in Portugal, 2; in Hungary, 3; in Italy, 38.

ARCHDEACON. This ecclesiastical officer, who was at first only the chief among the deacons in a cathedral or metropolitan church, in the 5th century, acquired an importance, which raised him above the rank of presbyters, and placed him nearly on an equality with the bishops. The archdeacons have since been not mere assistants, but representatives of the bishops in the dioceses and councils. By degrees, the affairs of the bishop's jurisdiction, the superintendence of the clergy, the churches, convents, and ecclesiastical possessions, the right of visitation, the trial of heresies in the western bishoprics, came to be exercised by the archdeacons. Until the 9th century, they were only delegates of the bishops, but they afterwards became independent officers of the church, with almost episcopal power, partly through the weakness and ignorance of their principals, partly through the division of the dioceses, which took place in the 8th century, into several smaller districts or archdeaconates, over which the archdeacons presided. In the 11th and 12th centuries, they were acknowledged as the most influential prelates of the church, and at the summit of their power. On the establishment of the general episcopal tribunals under particular officers or general vicars, in the 13th century, the dignity of the archdeacons diminished, and their jurisdiction in most dioceses, in the 15th and 16th centuries, passed to the new courts. In the 18th century, they were still regarded as dignitaries in some chapters; but now this office, principally on account of the contention about rank with the deans and other officers, is almost wholly abolished in the Catholic church. In the chapters established again since the downfall of Napoleon, it has not been revived. In the Greek church, since the 7th century, there have been no archdeacons, except one in the Greek imperial court

at Constantinople. The episcopal church in England, on the contrary, still has archdeacons, who are the deputies of the bishops, to superintend the districts. The archdeacons in the evangelical Lutheran church enjoy no particular privileges, except precedence over the other deacons. In Hamburg, they are the second ecclesiastics in the principal churches.

ARCHELAUS.—1. A Greek philosopher, a disciple of Anaxagoras. He flourished about 440 years B. C. Like his predecessor, he chiefly devoted his attention to the origin of things. He first taught at Lampsacus, and subsequently removed to Athens, where Socrates became his disciple and successor.—2. A king of Macedonia, natural son of Perdiccas II, and his successor. He entertained at his court Euripides, and employed Zeuxis' pencil. He died about 398 B. C.—3. The son of Herod the Great. His reign is described as most tyrannical and bloody. The people at length accused him before Augustus (Judea being then dependent upon Rome). The emperor, after hearing his defence, banished him to Vienne, in Gaul, where he died. To avoid the fury of this monster, Joseph and Mary retired to Nazareth.—4. The son of Apollonius, a sculptor. He was a native of Ionia, and is thought to have lived under Claudius. He executed in marble the apotheosis of Homer, which was found, in 1568, at a place called *Fratocchia*, belonging to the house of Colonna.

ARCHENHOLZ, John William von; a very voluminous German author; born 1743, died 1812. He is known in foreign countries by his *England* and *Italy*, translated into almost all the living languages of Europe. He also wrote *Annals of British History*, from 1788, in 20 vols., 1789—98. Perhaps his most important work is his *History of the Seven Years' War* (in German), 2 vols., Berlin, 1793.

ARCHERY; the art of shooting with a bow and arrow. This art, either as a means of offence in war, or of subsistence and amusement in time of peace, may be traced in the history of almost every nation. It always, however, declines with the progress of time, which introduces weapons more to be depended on, and not so easily exhausted as a bundle of arrows. With the ancients, the *sagittarii*, or archers, were an important class of troops. In the middle ages, the bow was much more used by the burghers than by the barons. The Swiss were famous archers. In modern times, this weapon is used by the Asiatic nations, by

the tribes of Africa, by the American Indians, &c. In 1813 and 1814, irregular troops, belonging to the Russian army, particularly the Bashkeers, appeared in Paris, armed with bows and arrows, and made surprising shots. The English monarchs, in former times, took great pains to encourage the exercise of shooting with the long bow, as appears from several acts in the reigns of Edward III, IV, Henry VII and VIII. Every citizen and burgher was ordered to practise archery, and the founder of Harrow school insisted upon shooting with the bow, as a fundamental part of the regulations of the institution. In Germany, there still exist, in some cities, societies of archers. The bows of the middle ages exhibit sometimes very excellent workmanship.

ARCHES COURT (*curia de arcubus*); the chief and most ancient consistory court, belonging to the archbishop of Canterbury, for the debating of spiritual causes. It is so called from the church in London, commonly called *St. Mary le Bow* (*de arcubus*), where it was formerly held, which church is named *Bow church*, from the steeple, which is supported by pillars built archwise, like so many bent bows. The jurisdiction of this court extends over the province of Canterbury. An appeal, however, lies to the king.

ARCHIL, or **ARCHILLA**, called, also, *rocella* and *orsielle*; a whitish moss, which grows upon rocks, in the Canary and cape Verd islands, and yields a rich purple tincture, fugitive, indeed, but extremely beautiful. When it is prepared for dyeing, it is called *lacmus*, or *litmus* (q. v.)

ARCHILOCHUS; a Greek poet, born on the island of Paros. He flourished about 700 B. C. His ardent spirit hurried him into the whirlpool of political party, and he was obliged to leave his country. He retired to Tarsus, where he fought against the Thracians, and lost his shield, more by accident than cowardice. He afterwards visited Greece, but the Spartans banished him from their state. He gained the laurel crown, however, at the Olympic games, for a hymn to Hercules. Some say he was killed in battle; others, that he was assassinated. A. was no less formidable with the pen than with the sword. Lycambes, who had promised him his daughter, and faithlessly violated his agreement, hung himself in despair on account of the satires in which the offended poet wreaked on him his revenge. With the same severity, he persecuted all his fellow citizens, who were unfortunate enough to displease him. His

memory was honored in all Greece so highly, that he was placed beside Homer. His iambic poems were renowned for the force of the style, the liveliness of the metaphors, a sententious conciseness, elevated feeling, and a powerful, but bitter spirit of satire. In other lyric poems of a higher character, he was also considered as a model. All his works are lost but a few fragments, collected by Liebel, Leipsic, 1812-17. He used the half-pentameter verse in his poems, whence this verse is called, from him, *Archilochian verse*: — — — — —.

ARCHIMANDRITE; in the Greek church, abbots or general-abbots, who have the superintendence of many abbots and convents; because, in the ancient Greek church, the abbots were called *mandra*, and *archi* is the Greek prefix (see *Arch*). In Sicily, the abbots are called thus because their convents were originally of Greek institution, and conform to the rules of St. Basil. The general-abbots of the united Greeks in Poland, Galicia, Transylvania, Hungary, Slavonia and Venice bear this title.

ARCHIMEDES, the most celebrated among the ancient geometricians, born at Syracuse, about 287 B. C., a relation of king Hiero, appears to have borne no public office, but to have devoted himself entirely to science. We cannot fully estimate his services to mathematics, for want of an acquaintance with the previous state of science; still we know that he enriched it with discoveries of the highest importance, upon which the moderns have founded their admeasurements of curvilinear surfaces and solids. Euclid, in his elements, considers only the relation of some of these magnitudes to each other, but does not compare them with surfaces and solids bounded by straight lines. A. has developed the propositions necessary for effecting this comparison, in his treatises on the sphere and cylinder, the spheroid and conoid, and in his work on the measure of the circle. He rose to still more abstruse considerations, in his treatise on the spiral, which, however, even those acquainted with the subject can with difficulty comprehend. A. is the only one among the ancients, who has left us any thing satisfactory on the theory of mechanics, and on hydrostatics. He first taught the principle, "that a body, immersed in a fluid, loses as much in weight as the weight of an equal volume of the fluid," and determined, by means of it, how much alloy an artist had fraudu-

lently added to a crown, which king Hiero had ordered to be made of pure gold. He discovered the solution of this problem while bathing; and it is said to have caused him so much joy, that he hastened home from the bath undressed, and crying out, "I have found it, I have found it!" Practical mechanics, also, appears to have been a new science at the time of A.; for his exclamation that he could move the earth, if he had a point without it to stand upon, shows the enthusiasm with which the extraordinary performances of his machines had inspired him. He is the inventor of the compound pulley, probably of the endless screw, &c. During the siege of Syracuse, he devoted all his talents to the defence of his native country. Polybius, Livy and Plutarch speak in detail, and with admiration, of the machines with which he repelled the attacks of the Romans. They make no mention of his having set on fire the enemy's fleet by burning-glasses,—a thing which is, in itself, very improbable, and related only in the later writings of Galen and Lucian. At the moment when the Romans, under Marcellus, gained possession of the city by assault, tradition relates that A. was sitting in the marketplace, absorbed in thought, and contemplating some figures which he had drawn in the sand. To a Roman soldier, who addressed him, he is related to have cried out, "Disturb not my circle!" but the rough warrior little heeded his request, and struck him down. As the conquest of Syracuse is placed in the year 212 B. C., Archimedes must have been 75 years old when he lost his life. On his tombstone was placed a cylinder, with a sphere inscribed in it, thereby to immortalize his discovery of their mutual relation, on which he set particular value. Cicero, who was appointed quæstor over Sicily, found this monument in a thicket which concealed it.

ARCHIPELAGO; a corruption of *Ægeopelago*, the modern Greek pronunciation of Ἀγαῖον Πέλαγος, the *Ægean* sea. The term, however, is applied to any tract of sea abounding in small islands, and to the clusters of islands situated therein. The group to which the name is most generally given is that lying in the *Ægean* sea, between the coasts of ancient Greece and Asia Minor. According to their situation, they are divided into the islands belonging to Europe and to Asia. The former lie together, almost in a circle, and for this reason have been called, by the Greeks, the *Cyclades* (q. v.); the latter,

being farther from one another, the *Sporades* (q. v.). All these islands are in the government of the capudan pacha, to which, however, Candia, with the little islands lying about it, does not belong. (Compare with this article *Hydra*, *Negropont*, *Scio*, *Samos*, *Rhodes*, *Cyprus*, &c.)—*Archipelago, Northern*, extends between the coasts of Kamschatka and the west coast of America, and comprehends four clusters: 1, Sasignan, containing five islands; 2, Khoa, including eight islands; both these groups together are called the *Aleutian islands* (q. v.); 3, the *Andreanoffski Ostrova*, comprising sixteen islands; 4, the *Lyssil* or *Fox islands*, including, also, sixteen islands.—*Archipelago of Lazarus*, near the coast of Malabar and Malacca.—*Archipelago of the Great Cyclades*; a cluster of islands in the South Pacific ocean, so named by Bougainville, and afterwards called the *New Hebrides* by Cook.—*Archipelago of the Philippines*, containing the Philippines, Moluccas, Celebes, &c. Some call it, also, the *Great A.*—*Archipelago of the Recherche*; several groups of islands, rocks and shoals, on the south coast of New Holland, extending from between 34° to 34° 30' S. lat., and 121° 30' to 123° 20' E. lon. The largest islands were named, by the French, *Mondrain* and *Middle island*.—Many other A. might be mentioned.

ARCHITECTURE, in the general sense of the word, is the art of erecting durable, commodious, healthful and handsome buildings of all kinds, adapted to the purposes of the builder. According to the objects to which it is applied, architecture is commonly divided into *civil architecture*, *military architecture* (see *Fortification*), and *naval architecture*. For the sake of convenience, further divisions are sometimes introduced, such as *hydraulic*, *mining*, &c., *architecture*. Upon the continent of Europe, architecture is often divided into private and public. The latter includes all structures commonly undertaken or particularly superintended by government. In Germany and France, there is a building police, which oversees both public and private edifices, and takes care that security and health are provided for in both.—There is something divine in man, which prompts him to look beyond the mere supply of his necessities, and to aim continually at higher objects. He therefore soon expected from his habitation and his temples more than mere utility. He aimed at elegance, and architecture became, by degrees, a fine art, differing

essentially, however, from the other fine arts in these respects; 1, that it is based on utility; 2, that it elevates mathematical laws to rules of beauty. Painting and sculpture are only the expression of the feeling of the beautiful. On the contrary, every creation of architecture must appear to have utility in view. A column or an architrave, which supports nothing, appears ridiculous, and every part of a building ought to show the purpose for which it is designed.

Architecture appears to have been among the earliest inventions, and its works have been commonly regulated by some principle of hereditary imitation. Whatever rude structure the climate and materials of any country have obliged its early inhabitants to adopt for their temporary shelter, the same structure, with all its prominent features, has been afterwards kept up by their refined and opulent posterity. Thus the Egyptian style of building has its origin in the *cavern* and *mound*;^{*} the Chinese architecture is modelled from the *tent*; the Grecian is derived from the wooden *cabin*, and the Gothic from the *bower* of trees.—The essential elementary parts of a building are those which contribute to its support, enclosure and covering. Of these, the most important are the foundation, the column, the wall, the lintel, the arch, the vault, the dome and the roof.—In laying the *foundation* of any building, it is necessary to dig to a certain depth in the earth, to secure a solid basis, below the reach of frost and common accidents. The most solid basis is rock, or gravel which has not been moved. Next to these are clay and sand, provided no other excavations have been made in the immediate neighborhood. From this basis a stone wall is carried up to the surface of the ground, and constitutes the foundation. Where it is intended that the superstructure shall press unequally, as at its piers, chimneys, or columns, it is sometimes of use to occupy the space between the points of pressure by an inverted arch. This distributes the pressure equally, and prevents the foundation from springing between the different points. In loose or muddy situations, it is always unsafe to build, unless we can reach the solid bottom below. In salt marshes and flats, this is done by depositing timbers, or driving wooden piles into the earth, and raising walls upon them. The preservative quality of the salt will keep these timbers unimpaired

for a great length of time, and makes the foundation equally secure with one of brick or stone.—The simplest member in any building, though by no means an essential one to all, is the *column* or *pillar*. This is a perpendicular part, commonly of equal breadth and thickness, not intended for the purpose of enclosure, but simply for the support of some part of the superstructure. The principal force which a column has to resist, is that of perpendicular pressure. In its shape, the shaft of a column should not be exactly cylindrical, but, since the lower part must support the weight of the superior part, in addition to the weight which presses equally on the whole column, the thickness should gradually decrease from bottom to top. The outline of columns should be a little curved, so as to represent a portion of a very long spheroid, or paraboloid, rather than of a cone. This figure is the joint result of two calculations, independent of beauty of appearance. One of these is, that the form best adapted for stability of base is that of a cone; the other is, that the figure, which would be of equal strength throughout for supporting a superincumbent weight, would be generated by the revolution of two parabolas round the axis of the column, the vertices of the curves being at its extremities.^{*}—The swell of the shafts of columns was called the *entasis* by the ancients. It has been lately found,[†] that the columns of the Parthenon, at Athens, which have been commonly supposed straight, deviate about an inch from a straight line, and that their greatest swell is at about one third of their height. Columns in the antique orders are usually made to diminish one sixth or one seventh of their diameter, and sometimes even one fourth. The Gothic pillar is commonly of equal thickness throughout.—The *wall*, another elementary part of a building, may be considered as the lateral continuation of a column, answering the purpose both of enclosure and support. A wall must diminish as it rises, for the same reasons, and in the same proportion, as the column. It must diminish still more rapidly if it extends through several stories, supporting weights at different heights. A wall, to possess the greatest strength, must also consist of pieces, the upper and lower surfaces of which are horizontal and regular, not rounded nor oblique. The walls of most of the an-

^{*} See Tredgold's Principles of Carpentry, p. 50.

[†] By MESSRS. Allason and Cockerell. See Brande's Journal, vol. x. p. 204.

^{*} Wilkins' Vitruvius, p. xvii.

cient structures, which have stood to the present time, are constructed in this manner, and frequently have their stones bound together with bolts and cramps of iron. The same method is adopted in such modern structures as are intended to possess great strength and durability, and, in some cases, the stones are even dovetailed together, as in the light-houses at Eddystone and Bell Rock. But many of our modern stone walls, for the sake of cheapness, have only one face of the stones squared, the inner half of the wall being completed with brick; so that they can, in reality, be considered only as brick walls faced with stone. Such walls are said to be liable to become convex outwardly, from the difference in the shrinking of the cement. *Rubble* walls are made of rough, irregular stones, laid in mortar. The stones should be broken, if possible, so as to produce horizontal surfaces. The *coffer* walls of the ancient Romans were made by enclosing successive portions of the intended wall in a box, and filling it with stones, sand and mortar, promiscuously. This kind of structure must have been extremely insecure. The Pantheon, and various other Roman buildings, are surrounded with a double brick wall, having its vacancy filled up with loose bricks and cement. The whole has gradually consolidated into a mass of great firmness. The *reticulated* walls of the Romans, having bricks with oblique surfaces, would, at the present day, be thought highly unphilosophical. Indeed, they could not long have stood, had it not been for the great strength of their cement. Modern brick walls are laid with great precision, and depend for firmness more upon their position than upon the strength of their cement. The bricks being laid in horizontal courses, and continually overlaying each other, or *breaking joints*, the whole mass is strongly interwoven, and bound together. Wooden walls, composed of timbers covered with boards, are a common, but more perishable kind. They require to be constantly covered with a coating of a foreign substance, as paint or plaster, to preserve them from spontaneous decomposition. In some parts of France, and elsewhere, a kind of wall is made of earth, rendered compact by ramming it in moulds or cases. This method is called building in *pisé*, and is much more durable than the nature of the material would lead us to suppose. Walls of all kinds are greatly strengthened by angles and curves, also by projections, such as

pilasters, chimneys and buttresses. These projections serve to increase the breadth of the foundation, and are always to be made use of in large buildings, and in walls of considerable length.—The *lintel*, or *beam*, extends in a right line over a vacant space, from one column or wall to another. The strength of the lintel will be greater in proportion as its transverse vertical diameter exceeds the horizontal, the strength being always as the square of the depth. The *floor* is the lateral continuation or connexion of beams by means of a covering of boards.—The *arch* is a transverse member of a building, answering the same purpose as the lintel, but vastly exceeding it in strength. The arch, unlike the lintel, may consist of any number of constituent pieces, without impairing its strength. It is, however, necessary that all the pieces should possess a uniform shape,—the shape of a portion of a wedge,—and that the joints, formed by the contact of their surfaces, should point towards a common centre. In this case, no one portion of the arch can be displaced or forced inward; and the arch cannot be broken by any force which is not sufficient to crush the materials of which it is made. In arches made of common bricks, the sides of which are parallel, any one of the bricks might be forced inward, were it not for the adhesion of the cement. Any two of the bricks, however, constitute a wedge, by the disposition of their mortar, and cannot collectively be forced inward. An arch of the proper form, when complete, is rendered stronger, instead of weaker, by the pressure of a considerable weight, provided this pressure be uniform. While building, however, it requires to be supported by a centring of the shape of its internal surface, until it is complete. The upper stone of an arch is called the *key-stone*, but is not more essential than any other. In regard to the shape of the arch, its most simple form is that of the semi-circle. It is, however, very frequently a smaller arc of a circle, and, still more frequently, a portion of an ellipse. The simplest theory of an arch supporting itself only, is that of Dr. Hooke. The arch, when it has only its own weight to bear, may be considered as the inversion of a chain, suspended at each end. The chain hangs in such a form, that the weight of each link or portion is held in equilibrium by the result of two forces acting at its extremities; and these forces, or tensions, are produced, the one by the weight of the portion of the chain below

the link, the other by the same weight increased by that of the link itself, both of them acting originally in a vertical direction. Now, supposing the chain inverted, so as to constitute an arch of the same form and weight, the relative situations of the forces will be the same, only they will act in contrary directions, so that they are compounded in a similar manner, and balance each other on the same conditions. The arch thus formed is denominated a *catenary* arch. In common cases, it differs but little from a circular arch of the extent of about one third of a whole circle, and rising from the abutments with an obliquity of about 30 degrees from a perpendicular. But though the catenary arch is the best form for supporting its own weight, and also all additional weight which presses in a vertical direction, it is not the best form to resist lateral pressure, or pressure like that of fluids, acting equally in all directions. Thus the arches of bridges and similar structures, when covered with loose stones and earth, are pressed sideways, as well as vertically, in the same manner as if they supported a weight of fluid. In this case, it is necessary that the arch should arise more perpendicularly from the abutment, and that its general figure should be that of the longitudinal segment of an ellipse. In small arches, in common buildings, where the disturbing force is not great, it is of little consequence what is the shape of the curve. The outlines may even be perfectly straight, as in the tier of bricks which we frequently see over a window. This is, strictly speaking, a real arch, provided the surfaces of the bricks tend towards a common centre. It is the weakest kind of arch, and a part of it is necessarily superfluous, since no greater portion can act in supporting a weight above it, than can be included between two curved or arched lines. Besides the arches already mentioned, various others are in use. The *acute* or *lancet* arch, much used in Gothic architecture, is described usually from two centres outside the arch. It is a strong arch for supporting vertical pressure. The *rampant* arch is one in which the two ends spring from unequal heights. The *horse-shoe* or *Moorish* arch is described from one or more centres placed above the base line. In this arch, the lower parts are in danger of being forced inward. The *ogee* arch is concavo-convex, and therefore fit only for ornament. In describing arches, the upper surface is called the *extrados*, and the inner, the *intrados*. The *springing lines* are

those where the intrados meets the abutments, or supporting walls. The *span* is the distance from one springing line to the other. The wedge-shaped stones, which form an arch, are sometimes called *voussoirs*, the uppermost being the key-stone. The part of a pier from which an arch springs is called the *impost*, and the curve formed by the upper side of the voussoirs, the *archivolt*. It is necessary that the walls, abutments and piers, on which arches are supported, should be so firm as to resist the lateral thrust, as well as vertical pressure, of the arch. It will at once be seen, that the lateral or sideways pressure of an arch is very considerable, when we recollect that every stone, or portion of the arch, is a wedge, a part of whose force acts to separate the abutments. For want of attention to this circumstance, important mistakes have been committed, the strength of buildings materially impaired, and their ruin accelerated. In some cases, the want of lateral firmness in the walls is compensated by a bar of iron stretched across the span of the arch, and connecting the abutments, like the tie-beam of a roof. This is the case in the cathedral of Milan and some other Gothic buildings.*—In an arcade, or continuation of arches, it is only necessary that the outer supports of the terminal arches should be strong enough to resist horizontal pressure. In the intermediate arches, the lateral force of each arch is counteracted by the opposing lateral force of the one contiguous to it. In bridges, however, where individual arches are liable to be destroyed by accident, it is desirable that each of the piers should possess sufficient horizontal strength to resist the lateral pressure of the adjoining arches.—The vault is the lateral continuation of an arch, serving to cover an area or passage, and bearing the same relation to the arch that the wall does to the column. A simple vault is constructed on the principles of the arch, and distributes its pressure equally along the walls or abutments. A complex or *groined* vault is made by two vaults intersecting each other, in which case the pressure is thrown upon springing points, and is greatly increased at those points. The groined vault is common in Gothic architecture.—The dome, sometimes called *cupola*, is a concave covering to a building, or part of it, and may be either a segment of a sphere, of a spheroid, or of any similar figure. When built of stone, it is

* Cadell's Journey through Carniola and Italy, vol. ii. p. 77.

a very strong kind of structure, even more so than the arch, since the tendency of each part to fall is counteracted, not only by those above and below it, but also by those on each side. It is only necessary that the constituent pieces should have a common form, and that this form should be somewhat like the frustum of a pyramid, so that, when placed in its situation, its four angles may point toward the centre, or axis, of the dome. During the erection of a dome, it is not necessary that it should be supported by a centring, until complete, as is done in the arch. Each circle of stones, when laid, is capable of supporting itself without aid from those above it. It follows that the dome may be left open at top, without a key-stone, and yet be perfectly secure in this respect, being the reverse of the arch. The dome of the Pantheon, at Rome, has been always open at top, and yet has stood unimpaired for nearly 2000 years. The upper circle of stones, though apparently the weakest, is nevertheless often made to support the additional weight of a lantern or tower above it. In several of the largest cathedrals, there are two domes, one within the other, which contribute their joint support to the lantern, which rests upon the top. In these buildings, the dome rests upon a circular wall, which is supported, in its turn, by arches upon massive pillars or piers. This construction is called building upon *pendentives*, and gives open space and room for passage beneath the dome. The remarks which have been made in regard to the abutments of the arch, apply equally to the walls immediately supporting a dome. They must be of sufficient thickness and solidity to resist the lateral pressure of the dome, which is very great. The walls of the Roman Pantheon are of great depth and solidity. In order that a dome in itself should be perfectly secure, its lower parts must not be too nearly vertical, since, in this case, they partake of the nature of perpendicular walls, and are acted upon by the spreading force of the parts above them. The dome of St. Paul's church, in London, and some others of similar construction, are bound with chains or hoops of iron, to prevent them from spreading at bottom. Domes which are made of wood depend, in part, for their strength, on their internal carpentry. The Halle du Bled, in Paris, had, originally, a wooden dome more than 200 feet in diameter, and only one foot in thickness. This has since been replaced by a dome of iron.—The roof is the most com-

mon and cheap method of covering buildings, to protect them from rain and other effects of the weather. It is sometimes flat, but more frequently oblique, in its shape. The flat or platform-roof is the least advantageous for shedding rain, and is seldom used in northern countries. The *pent* roof, consisting of two oblique sides meeting at top, is the most common form. These roofs are made steepest in cold climates, where they are liable to be loaded with snow. Where the four sides of the roof are all oblique, it is denominated a *hipped* roof, and where there are two portions to the roof, of different obliquity, it is a *curb*, or *mansard* roof. In modern times, roofs are made almost exclusively of wood, though frequently covered with incombustible materials. The internal structure or carpentry of roofs is a subject of considerable mechanical contrivance. The roof is supported by *rafters*, which abut on the walls on each side, like the extremities of an arch. If no other timbers existed, except the rafters, they would exert a strong lateral pressure on the walls, tending to separate and overthrow them.* To counteract this lateral force, a *tie-beam*, as it is called, extends across, receiving the ends of the rafters, and protecting the wall from their horizontal thrust. To prevent the tie-beam from *sagging*, or bending downward with its own weight, a *king-post* is erected from this beam, to the upper angle of the rafters, serving to connect the whole, and to suspend the weight of the beam. This is called *trussing*. *Queen-posts* are sometimes added, parallel to the king-post, in large roofs; also various other connecting timbers. In Gothic buildings, where the vaults do not admit of the use of a tie-beam, the rafters are prevented from spreading, as in an arch, by the strength of the buttresses. In comparing the lateral pressure of a high roof with that of a low one, the length of the tie-beam being the same, it will be seen that a high roof, from its containing most materials, may produce the greatest pressure, as far as weight is concerned. On the other hand, if the weight of both be equal, then the

* The largest roof that has hitherto been built is supposed to have been that of the riding-house at Moscow. Its span was 235 feet, and the slope of the roof about 19 degrees. The principal support of this immense truss consisted in an arch of timber in three thicknesses, indented together, and strapped and bolted with iron. The principal rafters and tie-beams were supported by several vertical pieces, notched to this arch, and the whole stiffened by diagonal braces.—*Tredgold's Carpentry*, p. 87.

low roof will exert the greater pressure; and this will increase in proportion to the distance of the point at which perpendiculars, drawn from the end of each rafter, would meet. In roofs, as well as in wooden domes and bridges, the materials are subjected to an internal strain, to resist which, the cohesive strength of the material is relied on. On this account, beams should, when possible, be of one piece. Where this cannot be effected, two or more beams are connected together by *splicing*. Spliced beams are never so strong as whole ones, yet they may be made to approach the same strength, by affixing lateral pieces, or by making the ends overlay each other, and connecting them with bolts and straps of iron. The tendency to separate is also resisted, by letting the two pieces into each other, by the process called *scarfing*. *Mortises*, intended to *truss* or suspend one piece by another, should be formed upon similar principles. Roofs in the U. States, after being boarded, receive a secondary covering of shingles. When intended to be incombustible, they are covered with slates or earthen tiles, or with sheets of lead, copper or tinned iron. Slates are preferable to tiles, being lighter, and absorbing less moisture. Metallic sheets are chiefly used for flat roofs, wooden domes, and curved and angular surfaces, which require a flexible material to cover them, or have not a sufficient pitch to shed the rain from slates or shingles. Various artificial compositions are occasionally used to cover roofs, the most common of which are mixtures of tar with lime, and sometimes with sand and gravel.—*Styles of building*. The architecture of different countries has been characterized by peculiarities in external form, and in modes of construction. These peculiarities, among ancient nations, were so distinct, that their structures may be identified even in the state of ruins; and the origin and era of each may be conjectured with tolerable accuracy. Before we proceed to describe architectural objects, it is necessary to explain certain terms, which are used to denote their different constituent portions. The architectural *orders* will be spoken of under the head of the Grecian and Roman styles, but their component parts ought previously to be understood.—The front or *façade* of a building, made after the ancient models, or any portion of it, may present three parts, occupying different heights.—The *pedestal* is the lower part, usually supporting a column. The single pedestal is wanting in most antique

structures, and its place supplied by a *stylobate*. The *stylobate* is either a platform with steps, or a continuous pedestal, supporting a row of columns. The lower part of a finished pedestal is called the *plinth*;^{*} the middle part is the *die*, and the upper part the *cornice* of the pedestal, or *surbase*.—The *column* is the middle part, situated upon the pedestal or *stylobate*. It is commonly detached from the wall, but is sometimes buried in it for half its diameter, and is then said to be *engaged*. *Pilasters* are square or flat columns, attached to walls. The lower part of a column, when distinct, is called the *base*; the middle, or longest part, is the *shaft*; and the upper, or ornamented part, is the *capital*. The height of columns is measured in diameters of the column itself, taken always at the base.—The *entablature* is the horizontal, continuous portion, which rests upon the top of a row of columns. The lower part of the entablature is called the *architrave*, or *epistylum*. The middle part is the *frieze*, which, from its usually containing sculpture, was called *zophorus* by the ancients. The upper, or projecting part, is the *cornice*.—A *pediment* is the triangular face, produced by the extremity of a roof. The middle, or flat portion, enclosed by the cornice of the pediment, is called the *tympānum*. Pedestals for statues, erected on the summit and extremities of a pediment, are called *acroteria*. An *attic* is an upper part of a building, terminated at top by a horizontal line, instead of a pediment.—The different *mouldings* in architecture are described from their sections, or from the profile which they present, when cut across. Of these, the *torus* is a convex moulding, the section of which is a semi-circle or nearly so. The *astragal* is like the torus, but smaller. The *ovolo* is convex, but its outline is only the quarter of a circle. The *echinus* resembles the ovolo, but its outline is spiral, not circular. The *scotia* is a deep, concave moulding. The *cavetto* is also concave, and occupying but a quarter of a circle. The *cymatium* is an undulated moulding, of which the upper part is concave, and the lower convex. The *ogee* or *talon* is an inverted cymatium. The *fillet* is a small, square or flat moulding.†—In architectural measurement, a *diameter* means the

* The name *plinth*, in its general sense, is applied to any square, projecting basis, such as those at the bottom of walls, and under the base of columns.

† By a singular mixture of derivations, the Greek, Latin, Italian, French and English languages are laid under contribution for the technical terms of architecture.

width of a column at the base. A *module* is half a diameter. A *minute* is a 60th part of a diameter.—In representing edifices by drawings, architects make use of the *plan*, *elevation*, *section* and *perspective*. The *plan* is a map, or design, of a horizontal surface, showing the ichnographic projection, or ground-work, with the relative position of walls, columns, doors, &c. The *elevation* is the orthographic projection of a front, or vertical surface; this being represented, not as it is actually seen in perspective, but as it would appear if seen from an infinite distance. The *section* shows the interior of a building, supposing the part in front of an intersecting plane to be removed. The *perspective* shows the building as it actually appears to the eye, subject to the laws of scenographic perspective. The three former are used by architects for purposes of admeasurement; the latter is used also by painters, and is capable of bringing more than one side into the same view, as the eye actually perceives them.—As the most approved features in modern architecture are derived from buildings which are more or less ancient, and as many of these buildings are now in too dilapidated a state to be easily copied, recourse is had to such imitative restorations, in drawings and models, as can be made out from the fragments and ruins which remain. In consequence of the known simplicity and regularity of most antique edifices, the task of restoration is less difficult than might be supposed. The ground-work, which is commonly extant, shows the length and breadth of the building, with the position of its walls, doors and columns. A single column, whether standing or fallen, and a fragment of the entablature, furnish data from which the remainder of the colonnade, and the height of the main body, can be made out. A single stone from the cornice of the pediment is often sufficient to give the angle of inclination, and, consequently, the height of the roof. In this way, beautiful restorations are obtained of structures, when in so ruinous a state as scarcely to have left one stone upon another.—We come now to the different styles of architecture.—I. *Egyptian style*. In ancient Egypt, a style of building prevailed, more massive and substantial than any which has succeeded it. The elementary features of Egyptian architecture were chiefly as follows: 1. Their walls were of great thickness, and sloping on the outside. This feature is supposed to have been derived from the mud walls,

mounds and caverns of their ancestors. 2. The roofs and covered ways were flat, or without pediments, and composed of blocks of stone, reaching from one wall or column to another. The principle of the arch, although known to them, was seldom, if ever, employed by them. 3. Their columns were numerous, close, short, and very large, being sometimes 10 or 12 feet in diameter. They were generally without bases, and had a great variety of capitals, from a simple square block, ornamented with hieroglyphics, or faces, to an elaborate composition of palm-leaves, not unlike the Corinthian capital. 4. They used a sort of concave entablature, or cornice, composed of vertical flutings, or leaves, and a winged globe in the centre. 5. Pyramids, well known for their prodigious size, and obelisks, composed of a single stone, often exceeding 70 feet in height, are structures peculiarly Egyptian. 6. Statues of enormous size, sphinxes carved in stone, and sculptures in outline of fabulous deities and animals, with innumerable hieroglyphics, are the decorative objects which belong to this style of architecture. The architecture of the ancient Hindoos appears to have been derived from the same original ideas as the Egyptian. The most remarkable relics of this people are their subterraneous temples, of vast size and elaborate workmanship, carved out of the solid rock, at Elephanta, Ellora and Salsette.—II. *The Chinese style*. The ancient Tartars, and wandering shepherds of Asia, appear to have lived from time immemorial in *tents*, a kind of habitation adapted to their erratic life. The Chinese have made the tent the elementary feature of their architecture; and of their style any one may form an idea, by inspecting the figures which are depicted upon common China ware. Chinese roofs are concave on the upper side, as if made of canvass, instead of wood. A Chinese portico is not unlike the awnings spread over shop windows in summer time. The *verandah*, sometimes copied in dwelling houses, is a structure of this sort. The Chinese towers and pagodas have concave roofs, like awnings, projecting over their several stories. The lightness of the style used by the Chinese leads them to build with wood, sometimes with brick, and seldom with stone.—III. *The Grecian style*. Grecian architecture, from which have been derived the most splendid structures of later ages, had its origin in the wooden hut or cabin, formed of posts set in the earth, and covered with

transverse poles and rafters. Its beginnings were very simple, being little more than imitations in stone of the original posts and beams. By degrees, these were modified and decorated, so as to give rise to the distinction of what are now called the *orders* of architecture.—By the architectural orders are understood certain modes of proportioning and decorating the column and its entablature. They were in use during the best days of Greece and Rome, for a period of 6 or 7 centuries. They were lost sight of in the dark ages, and again revived by the Italians, at the time of the restoration of letters. The Greeks had 3 orders, called the *Doric*, *Ionic* and *Corinthian*. These were adopted and modified by the Romans, who also added 2 others, called the *Tuscan* and *Composite*.—The *Doric* is the earliest and most massive order of the Greeks. It is known by its large columns with plain capitals; its *triglyphs* resembling the ends of beams, and its *mutules* corresponding to those of rafters. The column, in the examples at Athens, is about 6 diameters in height. In the older examples, as those at Paestum, it is but 4 or 5. The shaft had no base, but stood directly on the stylobate. It had 20 flutings, which were superficial, and separated by angular edges. The perpendicular outline was nearly straight. The Doric capital was plain, being formed of a few *annulets* or rings, a large *echinus*, and a flat stone at top called the *abacus*. The architrave was plain; the frieze was intersected by oblong projections called *triglyphs*, divided into 3 parts by vertical furrows, and ornamented beneath by *gutta*, or drops. The spaces between the triglyphs were called *metopes*, and commonly contained sculptures. The sculptures representing Centaurs and Lapithæ, carried by lord Elgin to London, were metopes of the Parthenon, or temple of Minerva, at Athens. The cornice of the Doric order consisted of a few large mouldings, having on their under side a series of square, sloping projections, resembling the ends of rafters, and called *mutules*. These were placed over both triglyphs and metopes, and were ornamented, on their under side, with circular *gutta*. The best specimens of the Doric order are found in the Parthenon, the Propylæa and the temple of Theseus, at Athens.—The *Ionic* is a lighter order than the Doric, its column being 8 or 9 diameters in height. It had a base often composed of a *torus*, a *scotia* and a second *torus*, with intervening fillets. This is

called the *Attic* base. Others were used in different parts of Greece. The shaft had 24, or more, flutings, which were narrow, as deep as a semicircle, and separated by a fillet or square edge. The capital of this order consisted of 2 parallel double scrolls, called *volute*s, occupying opposite sides, and supporting an abacus, which was nearly square, but moulded at its edges. These volutes have been considered as copied from ringlets of hair, or perhaps from the horns of Jupiter Ammon. When a column made the angle of an edifice, its volutes were placed, not upon opposite, but on contiguous sides, each fronting outward. In this case, the volutes interfered with each other at the corner, and were obliged to assume a diagonal direction. The Ionic entablature consisted of an architrave and frieze, which were continuous or unbroken, and a cornice of various successive mouldings, at the lower part of which was often a row of *dentels*, or square teeth. The examples at Athens, of the Ionic order, are the temple of Erectheus, and the temple on the Ilissus, which was standing in Stuart's time, 70 years since, but is now extinct.—The *Corinthian* was the lightest and most decorated of the Grecian orders. Its base resembled that of the Ionic, but was more complicated. The shaft was often 10 diameters in height, and was fluted like the Ionic. The capital was shaped like an inverted bell, and covered on the outside with two rows of leaves of the plant *acanthus*,* above which were 8 pairs of small volutes. Its abacus was moulded and concave on its sides, and truncated at the corners, with a flower on the centre of each side. The entablature of the Corinthian order resembled that of the Ionic, but was more complicated and ornamented, and had, under the cornice, a row of large, oblong projections, bearing a leaf or scroll on their under side, and called *modillions*. No vestiges of this order are now found in the remains of Corinth, and the most legitimate example at Athens is in the choragic monument of Lysicrates. The Corinthian order was much employed in the subsequent structures of Rome and its colonies.—*Caryatides*. The Greeks sometimes departed so far from the strict use of the orders, as to introduce statues, in the place of columns, to support the entablature. Statues

* The origin of the Corinthian capital has been ascribed to the sculptor Callimachus, who is said to have copied it from a basket accidentally enveloped in leaves of *acanthus*. A more probable supposition traces its origin to some of the Egyptian capitals, which it certainly resembles.

of slaves, heroes and gods appear to have been employed, occasionally, for this purpose. The principal specimen of this kind of architecture, which remains, is in a portico called *Pandroseum*, attached to the temple of Erectheus, at Athens, in which statues of Carian females, called *Caryatides*, are substituted for columns. One of these statues has been carried to London.—*Grecian temple*. The most remarkable public edifices of the Greeks were their temples. These being intended as places of resort for the priests, rather than for the convening of assemblies within, were, in general, obscurely lighted. Their form was commonly that of an oblong square, having a colonnade without, and a walled cell within. The cell was usually without windows, receiving its light only from a door at the end, and sometimes from an opening in the roof. The part of the colonnade which formed the front portico, was called the *pronaos*, and that which formed the back part, the *posticus*. The colonnade was subject to great variety in the number and disposition of its columns, from which Vitruvius has described 7 different species of temples. These were, 1. The temple with *ante*. In this, the front was composed of pilasters, called *ante*, on the sides, and 2 columns in the middle. 2. The *prostyle*. This had a row of columns at one end only. 3. The *amphiprostyle*, having a row of columns at each end. 4. The *peripteral* temple. This was surrounded by a single row of columns, having 6 in front and in rear, and 11, counting the angular columns, on each side. 5. The *dipteral*, with a double row of columns all round the cell, the front consisting of 8. 6. The *pseudo-dipteral* differs from the dipteral, in having a single row of columns on the sides, at the same distance from the cell as if the temple had been dipteral. 7. The *hypæthral* temple had the centre of its roof open to the sky. It was colonnaded without, like the dipteral, but had 10 columns in front. It had also an internal colonnade, called *peristyle*, on both sides of the open space, and composed of 2 stories or colonnades, one above the other.—Temples, especially small ones, were sometimes made of a circular form. When these were wholly open, or without a cell, they were called *monopteral* temples. When there was a circular cell within the colonnade, they were called *peripteral*.—The theatre of the Greeks, which

was afterwards copied by the Romans, was built in the form of a horse-shoe, being semicircular on one side, and square on the other. The semicircular part, which contained the audience, was filled with concentric seats, ascending from the centre to the outside. In the middle, or bottom, was a semicircular floor, called the *orchestra*. The opposite, or square part, contained the actors. Within this was erected, in front of the audience, a wall, ornamented with columns and sculpture, called the *scena*. The stage, or floor, between this part and the orchestra, was called the *proscenium*. Upon this floor was often erected a movable wooden stage, called, by the Romans, *pulpitum*. The ancient theatre was open to the sky, but a temporary awning was erected to shelter the audience from the sun and rain.—Grecian architecture is considered to have been in its greatest perfection in the age of Pericles and Phidias. The sculpture of this period is admitted to have been superior to that of any other age; and although architecture is a more arbitrary art than sculpture, yet it is natural to conclude, that the state of things, which gave birth to excellence in the one, must have produced a corresponding power of conceiving sublimity and beauty in the other. Grecian architecture was, in general, distinguished by simplicity of structure, fewness of parts, absence of arches, lowness of pediments and roofs, and by decorative curves, the outline of which was a spiral line, or conic section, and not a circular arc, as afterwards adopted by the Romans.—IV. *Roman style*. Roman architecture had its origin in copies of the Greek models. All the Grecian orders were introduced into Rome, and variously modified. Their number was augmented by the addition of 2 new orders—the Tuscan and the Composite.—The order derived from the ancient *Etruscans* is not unlike the Doric deprived of its triglyphs and mutules. It had a simple base, containing 1 torus. Its column was 7 diameters in height, with an astragal below the capital. Its entablature, somewhat like the Ionic, consisted of plain, running surfaces. There is no vestige of this order among ancient ruins, and the modern examples of it are taken from the descriptions of Vitruvius.—The Romans modified the Doric order by increasing the height of its column to 8 di-

style, the columns were a diameter and a half apart; in the *systyle*, they were 2 diameters apart; in the *diastyle*, 3; in the *arcæostyle*, more than 3; in the *eustyle*, 2½.

* The *intercolumniation*, or distance between the columns, according to Vitruvius, was differently arranged under the following names:—In the *pycno-*

ameters. Instead of the echinus, which formed the Grecian capital, they employed the ovolo, with an astragal and neck below it. They placed triglyphs over the centre of columns, not at the corners, and used horizontal mutules, or introduced foreign ornaments in their stead. The theatre of Marcellus has examples of the Roman Doric.—The Romans diminished the size of the volutes in the Ionic order. They also introduced a kind of Ionic capital, in which there were 4 pairs of diagonal volutes, instead of 2 pairs of parallel ones. This they usually added to parts of some other capital; but, at the present day, it is often used alone, under the name of *modern Ionic*.—The *Composite* order was made by the Romans out of the Corinthian, simply by combining its capital with that of the diagonal, or modern Ionic. Its best example is found in the arch of Titus. The favorite order, however, in Rome and its colonies, was the Corinthian, and it is this order which prevails among the ruins, not only of Rome, but of Nismes, Pola, Palmyra and Balbec.—The temples of the Romans sometimes resembled those of the Greeks, but often differed from them. The *Pantheon*, which is the most perfectly preserved temple of the Augustan age, is a circular building, lighted only from an aperture in the dome, and having a Corinthian portico in front. The *amphitheatre* differed from the theatre, in being a completely circular, or rather elliptical building, filled on all sides with ascending seats for spectators, and leaving only the central space, called the *arena*, for the combatants and public shows. The Coliseum is a stupendous structure of this kind. The *aqueducts* were stone canals, supported on massive arcades, and conveying large streams of water, for the supply of cities. The *triumphal arches* were commonly solid, oblong structures, ornamented with sculptures, and open with lofty arches for passengers below. The *basilica* of the Romans was a hall of justice, used also as an exchange, or place of meeting for merchants. It was lined on the inside with colonnades of 2 stories, or with 2 tiers of columns, one over the other. The earliest Christian churches at Rome were sometimes called *basilica*, from their possessing an internal colonnade. The monumental *pillars* were towers in the shape of a column on a pedestal, bearing a statue on the summit, which was approached by a spiral staircase within. Sometimes, however, the column was solid. The *therma*, or baths, were vast structures, in which

multitudes of people could bathe at once. They were supplied with warm and cold water, and fitted up with numerous rooms for purposes of exercise and recreation.—In several particulars, the Roman copies differed from the Greek models on which they were founded. The stylobate or substructure, among the Greeks, was usually a plain succession of platforms, constituting an equal access of steps to all sides of the building. Among the Romans, it became an elevated structure, like a continued pedestal, accessible by steps only at one end. The spiral curve of the Greeks was exchanged for the geometrical circular arc, as exemplified in the substitution of the ovolo for the echinus in the Doric capital. The changes in the orders have been already mentioned. After the period of Adrian, Roman architecture is considered to have been on the decline. Among the marks of a deteriorated style, introduced in the later periods, were columns with pedestals, columns supporting arches, convex friezes, entablatures squared so as to represent the continuation of the columns, pedestals for statues projecting from the sides of columns, niches covered with little pediments, &c.—V. *Greco-Gothic style*. After the dismemberment of the Roman empire, the arts degenerated so far, that a custom became prevalent of erecting new buildings with the fragments of old ones, which were dilapidated and torn down for the purpose. This gave rise to an irregular style of building, which continued to be imitated, especially in Italy, during the dark ages. It consisted of Grecian and Roman details, combined under new forms, and piled up into structures wholly unlike the antique originals. Hence the names *Greco-Gothic* and *Romanesque* architecture have been given to it. It frequently contained arches upon columns, forming successive arcades, which were accumulated above each other to a great height. The effect was sometimes imposing. The cathedral and leaning tower, at Pisa, and the church of St. Mark, at Venice, are cited as the best specimens of this style. The Saxon architecture, used anciently in England, has some things in common with this style.—VI. *Saracenic, or Moorish style*. The edifices erected by the Moors and Saracens in Spain, Egypt and Turkey are distinguished, among other things, by a peculiar form of the arch. This is a curve, constituting more than half of a circle or ellipse. This construction of the arch is unphilosophical, and comparatively inse-

cure. A similar peculiarity exists in the domes of the Oriental mosques, which are sometimes large segments of a sphere, appearing as if inflated, and, at other times, concavo-convex in their outline, as in the mosque of Achmet. The *minaret* is a tall, slender tower, peculiar to Turkish architecture. A peculiar flowery decoration, called *arabesque*, is common in the Moorish buildings of Europe and Africa. Some distinguish the Arabian style, formed after the Greek, and the Moorish, formed after the remains of the Roman buildings in Spain, which seems a good division. With regard to the latter, nobody can behold the remains of the Moorish buildings at Grenada, Seville and Cordova, without admiration. The Arabian style is particularly distinguished by light decorations and splendor.—VII. *Gothic style*. By this style is generally understood what is strictly called the *modern Gothic*, which flourished after the destruction of the Gothic kingdom by the Arabians and Moors. The old Gothic style, which probably originated under Theodoric, king of the Ostrogoths, during whose reign in Italy the Romans, with little sense of beauty, imitated the ancient Roman style, is coarse and heavy. The style now called *Gothic* exhibits a wonderful grandeur and splendor, and, at the same time, the most accurate execution; yet it is only in modern times that its great master-pieces, as the minster of Strasburg, the cathedral of Cologne, &c., have begun to be justly appreciated. Very great attention is, at present, paid to the study of this style. Its principle seems to have originated in the imitation of groves and bowers, under which the Druids performed their sacred rites. Its striking characteristics are, its pointed arches, its pinnacles and spires, its large buttresses, clustered pillars, vaulted roofs, profusion of ornaments, the general predominance of the perpendicular over the horizontal, and, in the whole, its lofty, bold spirit. As the common place for the display of Gothic architecture has been in ecclesiastical edifices, it is necessary to understand the usual plan and construction of these buildings. A church or cathedral is commonly built in the form of a cross, having a tower, lantern or spire, erected at the place of intersection. The part of the cross situated toward the west is called the *nave*. The opposite or eastern part is called the *choir*, and within this is the *chancel*. The transverse portion, forming the arms of the cross, is called the *transept*. Any high building erected above the roof is called

a *sleeple*; if square-topped, it is a *tower*; if long and acute, a *spire*; and, if short and light, a *lantern*. Towers of great height in proportion to their diameter are called *turrets*. The walls of Gothic churches are supported, on the outside, by lateral projections, extending from top to bottom, at the corners, and between the windows. These are called *buttresses*, and they are rendered necessary to prevent the walls from spreading under the enormous weight of the roofs. On the tops of the buttresses, and elsewhere, are slender pyramidal structures, or spires, called *pinnacles*. These are ornamented on their sides with rows of projections, appearing like leaves or buds, which are named *crockets*. The summit, or upper edge of a wall, if straight, is called a *parapet*; if indented, a *battlement*. Gothic windows were commonly crowned with an acute arch. They were long and narrow, or, if wide, were divided into perpendicular lights by *mullions*. The lateral spaces on the upper and outer side of the arch are called *spandrells*; and the ornaments in the top, collectively taken, are the *tracery*. An *oriel*, or *bay window*, is a projecting window. A *wheel*, or *rose window*, is large and circular. A *corbel* is a bracket, or short projection from a wall, serving to sustain a statue, or the springing of an arch. Gothic *pillars* or columns are usually clustered, appearing as if a number were bound together. The single shafts, thus connected, are called *botrels*. They are confined chiefly to the inside of buildings, and never support any thing, like an entablature. Their use is to aid in sustaining the vaults under the roof, which rest upon them at springing points. Gothic vaults intersect each other, forming angles called *groins*. The parts which are thrown out of the perpendicular, to assist in forming them, are the *pendentives*. The ornamented edge of the groined vault, extending diagonally, like an arch, from one support to another, is called the *ogive*. The Gothic term *gable* indicates the erect end of a roof, and answers to the Grecian *pediment*, but is more acute. The Gothic style of building is more imposing, admits of richer ornaments, and is more difficult to execute, than the Grecian. This is because the weight of its vaults and roofs is upheld, at a great height, by supporters acting at single points, and apparently but barely sufficient to effect their object. Great mechanical skill is necessary in balancing and sustaining the pressures; and architects, at the present day, find it often dif-

ficult to accomplish what was achieved by the builders of the middle ages.—In edifices erected at the present day, the Grecian and Gothic outlines are commonly employed to the exclusion of the rest. In choosing between them, the fancy of the builder, more than any positive rule of fitness, must direct the decision. Modern dwelling-houses have necessarily a style of their own, as far as stories and apartments, and windows and chimneys, can give them one. No more of the styles of former ages can be applied to them, than what may be called the unessential and decorative parts. In general, the Grecian style, from its right angles and straight entablatures, is more convenient, and fits better with the distribution of our common edifices, than the pointed and irregular Gothic. The expense, also, is generally less, especially if any thing like thorough and genuine Gothic is attempted,—a thing, however, rarely undertaken, as yet, in the U. States. But the occasional introduction of the Gothic outline, and the partial employment of its ornaments, has undoubtedly an agreeable effect, both in public and private edifices; and we are indebted to it, among other things, for the spire, a structure exclusively Gothic, which, though often misplaced, has become an object of general approbation, and a pleasing landmark to cities and villages. (For further information, see, among other works, Bigelow's *Technology*, Boston, 1829, p. 112—152, from which the above article is extracted, with the exception of the first paragraph.)

ARCHITECTURE, history of. The first habitations of men were such as nature afforded, with but little labor on the part of the occupant, and sufficient to satisfy his simple wants,—huts, grottos and tents. But as soon as men rose above the state of rude nature, formed societies, and cultivated the soil, they began to build more durable and more commodious habitations. They wrought the materials with more care, fitted the parts together more closely and neatly, prepared bricks of clay and earth, which they first dried in the air, and afterwards baked by the fire; they smoothed stones, and joined them, at first without cement. After they had learned to build houses, they began to erect temples for their gods, who first dwelt with them in caverns, huts and tents. These temples were larger and more splendid than the habitations of men. Thus architecture became a fine art, which was first displayed on the temples; afterwards, on the habitations of princes, and public

buildings, and, at last, with the progress of wealth and refinement, became a universal want of society. The haughty palace appeared in the place of the wretched hut of reeds and clay; the rough trunk was transformed into a lofty column, and the natural vault of a cavern into the splendid Pantheon. Colonnades, halls, courts, and various ornaments now appeared. Stieglitz contends that the fundamental forms of the ancient Egyptian and Grecian architecture probably originated in structures of stone, and not from those of wood, as Hirt maintains in his *History of the Architecture of the Ancients*. The most ancient buildings of the Indians were modelled on the structure of caverns. To the most ancient nations known to us, among whom architecture had made some progress, belong the Babylonians, whose most celebrated buildings were the temple of Belus, the palace and the hanging gardens of Semiramis; the Assyrians, whose capital, Nineveh, was rich in splendid buildings; the Phœnicians, whose cities, Sidon, Tyre, Aradus and Sarepta, were adorned with equal magnificence; the Israelites, whose temple was considered as a wonder of architecture; the Syrians and the Philistines. No architectural monument of these nations has, however, been transmitted to us. But we find subterraneous temples of the Hindoos, hewn out of the solid rock, upon the islands Elephanta and Salsetta. Of the Persian architecture, the ruins of Persepolis still remain; of the Egyptian, obelisks, pyramids, temples, palaces, sepulchres; of the Etruscan, some sepulchres and portions of city-walls.—The character of this elder architecture was immovable firmness, gigantic height, prodigal splendor, which excited admiration and astonishment, but comparatively little pleasure. The Greeks were the first who passed from the rough and gigantic to a noble simplicity and dignity. The Doric order of columns characterizes this first period. The greatest masters, Phidias, Ictinus, Callicrates and others, encouraged and supported by Pericles, emulated each other, as soon as peace at home and abroad was restored. The beautiful temple of Minerva was erected upon the Acropolis of Athens, also the Propylæum, the Odeum, and other splendid buildings. An equal taste for the arts arose in the Peloponnesus and in Asia Minor. A high degree of simplicity was united with majestic grandeur and elegance of form. The beauties of architecture were displayed not only in tem-

ples, but also in theatres, odeums, colonnades, market-places and gymnasia. The Ionic and Corinthian columns were added to the Doric. At the end of the Peloponnesian war, the perfection of architecture was gone. A noble simplicity had given place to excess of ornament. This was the character of the art at the time of Alexander, who founded a number of new cities. But a strict regularity hitherto prevailed in the midst of this overcharged decoration. After the death of Alexander, 323 B. C., the increasing love of gaudy splendor hastened the decline of the art more and more. In Greece, it was afterwards but little cultivated, and, in the edifices of the Seleucidæ in Asia, and of the Ptolemies in Egypt, an impure taste prevailed. The Romans had no temples, or similar public edifices, equal to the Grecian master-pieces, although they had early applied their industry to other objects of architecture, viz., to aqueducts and sewers. The capitol and the temple of the capitoline Jupiter were erected by Etruscan architects. But, soon after the second Punic war, 200 B. C., they became acquainted with the Greeks. Sylla was the first who introduced the Grecian architecture to Rome; and he, as also Marius and Cæsar, erected large temples in this and in other cities. But under Augustus the art first rose to the perfection of which it was capable at that time. He encouraged the Greek artists, who had exchanged their country for Rome, and erected, partly from policy, many splendid works of architecture. Agrippa built temples (the Pantheon), aqueducts and theatres. Private habitations were adorned with columns and marble. Splendid villas were built, of which the rich Romans often possessed several. The interior was adorned with works of art, obtained from Greece. The walls were covered with thin marble plates, or were painted, and divided into panes, in the middle of which were represented mythological or historical subjects. They were also surrounded with the most elegant borders. These borders were what we call *grotesques*. Almost all the successors of Augustus embellished the city more or less, erected splendid palaces and temples, and adorned, like Adrian, even the conquered countries with them. Constantine the Great transferred the imperial residence from Rome to Constantinople, so that nothing more was done for the embellishment of Rome. —But, at the time when the Romans received the art from the Greeks, it had already lost, among the latter, its perfec-

tion and purity. In Rome, it rose, indeed, in a short time, to its former height, but soon degenerated, with the continually-increasing magnificence of the emperors, into extravagance of ornament. About this time, the Roman or Composite column originated, which was employed in temples and splendid buildings. In the time of Nero, whose golden palace is celebrated, the exterior and interior of the buildings were profusely adorned. Adrian, who encouraged artists as much as possible, was not able to restore a noble and simple taste in architecture. Instead of imitating the beautiful models already existing, the endeavor, in his time, was to invent new styles, and to embellish the beautiful more and more. Now originated the many curved and twisted ornaments, the high pedestal under the columns, the numerous bass-reliefs on the exterior of buildings, the flutings of the columns, the reduction of the same according to a curved line, the coupled columns, the reduced pilasters behind the columns, the small columns between larger ones, the round and cut pediments, and the concave friezes. Thus the art was practised from the time of Vespasian to the reign of the Antonines. Works were produced, in this period, which may still be considered as master-pieces, but which want the great and noble style of the Greeks. In the provinces, taste became still more corrupt. Architecture declined continually after the Antonines; more ornaments were continually added, which is proved particularly by the *arch of the goldsmiths*, so called, in Rome. Alexander Severus, indeed, himself a connoisseur, did something for its improvement, but it rapidly declined under his successors. The buildings of this time are either overcharged with mean and trifling ornaments, as those of Palmyra, erected about 260 A. D., or they border on the rude, like those of Rome, erected under Constantine. Little was done, under the following emperors, for the embellishment of the cities, on account of the continually disturbed state of the empire. Justinian, however, built much. His principal edifice was the church of St. Sophia, at Constantinople. The beautiful works of ancient architecture were almost entirely destroyed by the Goths, Vandals, and other barbarians, in Italy, Spain, Greece, Asia and Africa; and whatever escaped destruction remained in neglect. Theodoric, king of the Ostrogoths, a friend of the arts, endeavored to preserve and restore the ancient buildings, and even erected several

new ones, the ruins of which are still to be seen in Ravenna and Verona. We may consider this period as the era of the origin of modern art. We see a new style taking place of the ancient classical architecture, and eventually extending as far as the conquests of the Goths, through Italy, France, Spain, Portugal, a part of Germany, and even to England, whither, however, the Goths did not penetrate. Whether this modern architecture, which is called *Gothic*, originated from the Germans, is not decided. We find, in the buildings erected under Theodoric, nothing attempted but simplicity, strength, and the display of national taste in their exterior (the interior is unknown to us). But the buildings erected during the Lombard dominion in Italy (from 568), and all the monastic architecture of that time, have been erroneously called *Gothic*. Since the error was perceived, it has been distinguished, by the name of the *old Gothic*, from the proper *Gothic*, which is called the *modern Gothic*. The Lombards entertained no respect for antiquities, and neither spared nor preserved them. Whatever they built was tasteless and faulty. On the exterior of their churches they placed small semicircular columns; and small pillars in a row along the cornice of the pediments; in the interior, coarse pillars united by semicircular arches; the small windows and doors were finished with semicircles; the columns, capitals and arches were often overlaid with incongruous sculpture; the roofs of the naves covered with beams and boards, which were afterwards changed into arches, and, on this account, often required arched buttresses on the outside. This Lombard style in architecture clearly proves the decline of science and art. It was employed, in the 17th century, in Pavia, the chief city of the Lombard kingdom, in the erection of the churches of St. John and St. Michael; at Parma, in the church of St. John; at Bergamo, in the church of St. Julia; in the chapel of Altenötting, in Bavaria; in the castle of Nuremberg, in the Scottish church at Ratisbon, &c. The architects driven from Constantinople (Byzantium) were the first who combined with it the use of the Ionic pedestals and columns, provided with capitals formed according to their own taste, among which were twisted ones. In this Lombard-Byzantine style were erected the cathedrals of Bamberg, Worms and Mentz, also the church Miniato al Monte, near Florence, and the most ancient part of the minster of Stras-

burg. Cupolas were afterwards added, as used in the East, and these, as well as the tasteless capitals, and the many slender pillars and minarets, of which we often see 2 rows, one on another, indicate the proper Byzantine or Oriental style of architecture. In this style were erected, besides the church of St. Sophia in Constantinople, and others, the church of St. Mark, in Venice, the Baptisterium and the cathedral of Pisa, and the church of St. Vitalis, in Ravenna. The Normans, who had settled in Sicily, built the cathedral of Messina upon the foundation of an old temple,—a huge but tasteless edifice, in which, by means of the changes made in different centuries, we may observe, at the same time, the rise and fall of the art. The Vandals, Alans, Suevi and Visigoths had penetrated into Spain and Portugal: the Arabs and Moors expelled them in the 8th century, and destroyed the kingdom of the Goths. The Mussulman conquerors had, at that time, almost exclusive possession of the arts and sciences. Saracen architects rose in Greece, Italy, Sicily, and other countries: after some time, many Christians, particularly Greeks, joined them, and formed together a fraternity, who kept secret the rules of their art, and whose members recognised one another by particular signs. (See *Freemasons*.) At this period, three different styles of architecture prevailed—the Arabian, a peculiar style, formed after Greek models; the Moorish, which originated in Spain, out of the remains of Roman edifices; and the modern Gothic, which originated in the kingdom of the Visigoths, in Spain, through the mixture of the Arabian and Moorish architecture, and flourished from the 11th until the 15th century. The 2 first styles differ but little from each other: the Moorish style is principally distinguished from the Arabian by arches in the form of a horse-shoe. But the Gothic, or old German, is very different. Swinburne mentions the following marks of distinction: The Gothic arches are pointed; the Arabian, circular: the Gothic churches have pointed and straight towers; the mosques terminate in globes, and have here and there minarets, covered with a ball or a cone: the Arabian walls are adorned with Mosaic and stucco, which we find in no ancient church in the Gothic style. The Gothic columns often stand united in groups, over which is placed a very low entablature, upon which arches are erected; or the arches stand immediately upon the capitals of the col-

amns. The Arabian and Moorish columns are single, and if, by chance, they are placed close together, in order to support a very heavy part of the building, they never touch one another; but the arches are supported by a stout and thick arch below. If, in an Arabian building, 4 columns are united, it is by a low, square wall at the bottom, between the columns. The Gothic churches are extremely light buildings: they have large windows, often with variegated panes. In the Arabian mosques, the ceiling is mostly low; their windows are of less height, and often covered with carvings; so that the light is received less through them than through the cupola and the opened doors. The entrance of a Gothic church is a deep arch, diminishing towards the interior of the building, and adorned on the side-walls with statues, columns, niches and other ornaments; but those of the mosques, and of other Arabian, and even Moorish buildings, are shallow, and made in the same manner as doors are at present. Besides, Swinburne observes, that, among the different Arabian capitals which he saw, he found none resembling, in design and arrangement, those which we find in the Gothic churches of England and France. The Moorish architecture appears in all its splendor in the ancient palace of the Mohammedan monarchs at Grenada, which is called the *Alhambra*, or *red-house*, and which resembles more a fairy palace than a work of human hands. The character of the Arabian architecture was lightness and splendor. Rich ornaments, and lightness in the single parts, render it agreeable to the eye. The modern Gothic architecture, which originated in the attempts of Byzantine artists to cover the coarseness and heaviness of the old Gothic by an appearance of lightness, excites the imagination by its richly-adorned arches, its distant perspective, and its religious dimness, produced by its painted windows. It retained, from the old Gothic architecture, the high, bold arches, the firm and strong walls; but it disguised them under volutes, flowers, niches, little pierced towers, so that they appear to be light and weak. Afterwards, the architects went still farther, and pierced the large, high towers, so that the stairs appear hanging in the air; they gave to the windows an extraordinary height, and adorned the building itself with statues. This style, in which many churches, convents and abbeys were erected, was formed in Spain, and thence extended over France, England and Ger-

many.—The Germans were unacquainted with architecture until the time of Charlemagne. He introduced from Italy to Germany the Byzantine style, then common. Afterwards, the Arabian architecture had some influence upon that of the western nations; for the German art shows its characteristics in the pointed arches, and the buttresses, &c. This was united with the Byzantine style, to which, in general, they still adhered, and thus originated a mixed style, which maintained itself until the middle of the 13th century. Then began the modern Gothic or German style, which we may also call the *romantic*, since it was formed by the romantic spirit of the middle ages. Growing up in Germany, it obtained its perfection in the towers of the minster of Strasbourg (see *Minster*), in the cathedral of Cologne, in the church of St. Stephen in Vienna, the cathedral of Erfurt, the church of St. Sebaldus in Nuremberg, the church of St. Elizabeth in Marburg, &c., and extended itself from thence to France, England, Spain and Italy. The German architecture shows also the influences of climate and religion, particularly in the churches. The slender columns, always united in groups, rise to a lofty height, resembling the giants of the grove, in whose dark shade the ancient Teuton used to build his altar. In the *chiaro oscuro* of the dome, the soul, divested of earthly thoughts, must collect itself, and rise, like the dome, to its Maker. The decorations of the ancient Christian churches are by no means an accidental ornament. They speak a figurative, religious language: and at the tabernacle, or *ciborium*, over the altar, where the pyx is kept, the whole temple is presented, in miniature, to the view of the beholder. In these edifices, every one must admire the accurate proportions, the bold yet regular construction, the unwearied industry, the grandeur of the bold masses on the exterior, and the severe dignity in the interior, which excites feelings of devotion in every spectator. We must, therefore, ascribe to the German architecture more symbolical than hieroglyphic eloquence and dignity. (See Costenoble *On old German Architecture and its Origin*, Halle, 1812; Rumohr's *Fragments of a History of Architecture*, in Schlegel's *German Museum*, 1813, March number, &c.)—The Italians disengaged themselves, by little and little, from the Byzantine taste. Even in the 11th century, Byzantine architects built the cathedral of Pisa and the church of St. Mark in Venice. But,

in the 12th century, a German architect, named *William* (Guglielmo), and, in the 13th, *Jacob*, with the surname *Capo*, who died in 1262, and his pupil or son, *Arnolf*, are mentioned as having built churches and convents in Florence. The modern Gothic style passed from the churches and abbeys to the castles, palaces, bridges and city gates, many of which were built in this manner; e. g., in Milan, 16 city gates of marble, and several new palaces; in Padua, 7 bridges, and 3 new palaces; in Genoa, 2 docks and a splendid aqueduct; and the town of Asti, in 1280, almost entirely. Architecture was continually improving in Italy, particularly in the 14th century. Galeazzo Visconti finished the great bridge at Pavia, and built a palace which had not then its equal. About the same time, the famous cathedral of Milan was erected. The marquises of Este erected handsome edifices at Ferrara, and Albert the splendid palace at Belsiore. In Bologna, the great church of St. Petronius was begun, and, in Florence, the famous tower of the cathedral. The 15th century, in which the study of ancient architecture was revived, was greatly distinguished. The dukes of Ferrara, Borsso and Ercole of Este, were active patrons of architecture. Duke Francesco enclosed Milan with the ducal palace, the castle Porta di Giove, the hospital and other edifices. Ludovico Sforza erected the buildings of the university at Pavia and the hospital of Milan. The popes adorned Rome, and Lorenzo de' Medici, Florence, with splendid buildings. The artists returned to the monuments of antiquity, and studied their beautiful forms and just proportions. The most illustrious architects of this time were Filippo Brunelleschi, who built, at Florence, the dome of the cathedral, the church S. Spirito, and the palace Pitti, besides many edifices at Milan, Pisa, Pesaro and Mantua; Battista Alberti, who wrote, at the same time, on architecture; Michelozzi Bramante, who commenced the building of St. Peter's; Michael Angelo Buonarroti, who erected its magnificent dome; and Giocondo, who built much in France, and afterwards directed, with Raphael, the building of the church of St. Peter's. These were followed by others, who proceeded in their spirit—Palladio, Scamozzi, Serlio, Barozzio, known by the name of *Vignola*. They are the founders of the existing taste in architecture. That, however, they studied their art in those works of antiquity which had already deviated from the early purity and elevated

grandeur, is evident in their buildings, from the many curved and twisted ornaments, the circular, irregular and cut pediments, the coupled columns, high pedestals, and other things, which were unknown to architecture at the time of Pericles. Thus a new period in architecture had begun in Italy. Italian masters, and young artists sent to Italy, introduced the Roman taste into foreign countries, which gradually supplanted the Gothic.—Since that time, architecture has experienced different destinies in different countries. It has risen and declined at different periods; yet laudable attempts have been made, in recent times, to advance it to its true perfection, though we cannot affirm that they have succeeded every where.—In America, the pure Grecian architecture is gradually prevailing, either because this style is founded on plainer principles than the others, or because the Grecian really deserves to be called a *republican style*, since it is better adapted than the Gothic to small buildings, and does not require large and splendid edifices (a great number of which can never exist in a democracy), in order to display all its beauty. (For an account of modern architecture in different countries, see the respective articles.)

ARCHIVES; a collection of written documents, containing the rights, privileges, claims, treaties, constitutions, &c., of a family, corporation, community, city or kingdom; also, the place where such documents are kept. There are, accordingly, private and public or state archives. Archives were known among the most ancient people. The Israelites, Greeks and Romans had them in their temples, and the Christians, at first, preserved important manuscripts with the sacred vessels and relics, till proper places were assigned to them. Those governments which transact every thing by writing have, of course, much larger archives than others; thus the archives in every branch of government in Prussia and Austria are immense.—According to Wageinselius, the archives of the German empire contain very few documents before the time of the emperor Rodolph of Hapsburg (who was elected in 1273), or even of the subsequent century. At the end of the 15th century, and at the beginning of the 16th, under Maximilian I, the archives of the empire received a new form, and have been preserved with great care. Some historians, (e. g., Schmidt, in his *History of the Germans*), have made the most diligent

and praiseworthy use of them. The modern archives of Prussia are excellently arranged; probably none are so complete in respect to statistical matters. The English have been so careful in preserving their archives, that other European nations have often found documents highly important to themselves in London. In France, the archives were dispersed all over the country till the revolution, when, by law of Sept. 7, 1790, they were put in a common place of deposit, after a very large quantity of documents had been destroyed. This immense collection of public acts is now in the ancient hotel Soubise, au Marais, in Paris. The laws of Oct. 10, 1792, and Feb. 20, 1793, put the whole management of the archives on a systematic footing. In 1814, June 6, the archives of the navy and the war departments were organized, in order to preserve the historical documents, military memoirs, plans and maps, &c. The archives of the U. States are easily accessible, and proper recommendation will open them to any one who wants to use them for scientific purposes.

ARCHONS; the highest magistrates in Athens. (See *Attica*.) The Jews, also, had archons in their captivity.

ARCHYTAS of Tarentum; a famous Pythagorean, renowned as a truly wise man, a great mathematician, statesman and general. He devoted himself, at Metapontum, to the study of the Pythagorean philosophy. Being the contemporary of Plato (Olympiad 96; 400 B. C.), he must have lived a century later than Pythagoras, and was still alive when Plato travelled to Sicily. Hence he cannot be regarded as the instructor of Philolaus, who was older; and still less as the immediate scholar of Pythagoras. The invention of the analytic method in mathematics is ascribed to him, as well as the solution of many geometrical and mechanical problems. He also constructed an automaton (a flying pigeon). Perhaps he was also the inventor of the categories in philosophy. It is, however, still undecided whether Aristotle's work on the ten categories is drawn from his work or forged. Horace mentions him, in one of his poems, as having been drowned on the coast of Apulia.

ARCKENHOLZ, John, the historian, was born, 1695, in Swedish Finland, and died 1777, at Stockholm. He wrote *Mémoires concernant Christine, Reine de la Suède*, Amsterdam, 1751—60, 4 vols. 4to.

ARCON, Jean Claude Eléonore d', inventor of the floating batteries for the

attack of Gibraltar, born, 1732, at Pontarlier, was designed for the church, but his father, a lawyer, yielded to the decided inclination of his son for military science. He was received into the military school at Mézières, 1754, and, the following year, into the corps of engineers. In the seven years' war, he highly distinguished himself, particularly at the defence of Cassel, in 1761. In 1774, he was employed in drawing a map of the Jura and the Vosges, and, to expedite the labor, he invented a new mode of shading, much superior to the common one. He was gifted with an inventive imagination and an unwearied activity. He wrote much, and in all his writings, which are read with pleasure in spite of their incorrect style, we find a richness of ideas, and traces of a splendid genius. In 1780, he invented the floating batteries. The jealousy and disunion of the French and Spanish generals alone prevented the event from answering his expectation. Elliot, who directed the defence of Gibraltar, did full justice to the inventor.—At the invasion of Holland, under Dumouriez, he took several places, including Breda. He then went into retirement, where he wrote his last and best work, the result of all the rest,—*Considérations Militaires et Politiques sur les Fortifications*; (Military and Political Considerations on Fortifications). The first consul placed him in the senate in 1799, and he died July 1, 1800.

ARCONA; the most northern point of Germany (if Prussia Proper is not included therein); the north-eastern promontory of the island Rügen, in the parish Altenkirchen, upon the peninsula Wittow, consisting of chalk, flint and petrifications. Here was formerly situated the old Vandal castle, with the chief temple of the god Swantewit, who was highly venerated by all the Sclavonians in North Germany, and whose worship king Woldemar I of Denmark put an end to, by capturing the castle, in 1168. The country is delightful and fertile. The shores are precipitous and abrupt, and very picturesque. In the vicinity of the old Herthasburg, in the holy grove of Hertha, may yet be seen the deep lake which served for ablutions and secret sacrifices. Travellers frequently visit the island, which, on account of its seclusion, abounds with old and marvellous tales. (See *Rügen*.) Lately, a light-house has been erected on the promontory of A.

by the Prussian government.

ARCOT; a large district of Hindostan.

It was formerly independent, but, since 1802, it has been under the British dominion. The exports consist chiefly of arrack, pepper, palmirahs, received from Ceylon, Travancore and Prince of Wales's island.

ARCOT (anciently *Arcati*, *Regiæ Soræ*, and *Soromandala*); a city of Hindostan, capital of the Carnatic, on the Peliar, 57 miles W. S. W. of Madras; lon. $79^{\circ} 29'$ E.; lat. $12^{\circ} 52'$ N. The fort is a mile in circumference. The city is extensive, and manufactures coarse cotton cloth. Hyder Ali gained possession of it Sept. 30, 1780, after having defeated the English, who had possessed it since 1760.

ARCTIC; an epithet given to the north pole, or the pole raised above our horizon. It is called the *arctic pole*, on account of the constellation of the Little Bear, in Greek called *ἀρκτος*, the last star in the tail whereof points out the north pole.—*Arctic circle* is a lesser circle of the sphere, parallel to the equator, and $23^{\circ} 28'$ distant from the north pole, from whence its name. This and its opposite, the ant-arctic (q. v.), are called the *two polar circles*, and may be conceived to be described by the motion of the poles of the ecliptic round the poles of the equator, or of the world.

ARCTURUS; a fixed star of the first magnitude, in the constellation of Arc-tophylax or Boötes.

ARCTUS (Greek, *ἀρκτος*); a name given by the Greeks to 2 constellations, called, by the Latins, *Ursa (major and minor)*, and by us, the *Bear (great and little)*.

ARCUATION; the method of raising, by layers, such trees as cannot be raised from seed. The process consists in bending to the ground the branches which spring from the offsets or stools, after they are planted. Arcuation is based on this principle in vegetable life, that the plant depends chiefly upon external influences, and that a part, which now has become a branch by the influence of air, may be easily turned into a root by the influence of the earth. In fact, alleys of trees have been made, which, after growing to a considerable size, have had the branches turned into the ground, and the roots towards the sky. The former, after a while, became roots, and the latter put forth foliage. In the animal kingdom, such great changes do not appear to take place; yet some parts may be turned into others.

ARDÈCHE, département de l'; a département in the south of France, on the right bank of the Rhone. It contains 1836

square miles, and had, in 1828, a population of 328,419.

ARDENNES; a chain of mountains covered with woods, between the Meuse and the Moselle, in the grand-duchy of Luxemburg. In the time of the Romans, the wood of A. comprehended a large part of Gallia Belgica, and, according to Cæsar, extended from the Rhine, through the country of Treves, to the territory of the Remii. More than 20 rivers and brooks take their rise in it. The mines are no longer worked for iron, copper, and the precious metals. Sheep are raised here in considerable numbers, and the country affords much game.—The name *A.* is derived from the Celtic *ar*, in, and *duan-na*, well of God.—In a wider sense, the mountains extending from the former French Hainault to the Moselle are called *A.*; whence, also, a department in the north-eastern part of France, containing about 2100 square miles and 281,624 inhabitants, the chief city of which is Mézières, has the same name.

ARDEY; the chain of mountains extending along the Ruhr, in the county of Mark, from Frödenberg to Volmarstein. It consists of rough sandstone, above which are masses of coal. This mineral is very important in this populous manufacturing region. The ruins of a castle, where the counts of Ardey dwelt in the 7th century, are still to be seen in this mountain.

ARE; a superficial square measure in France, substituted for the former square rod. It consists of 1076.44 English square feet. The 10th part of an are is called a *deciare*, and the 100th a *centiare*. *Decare* is a surface of ten ares.

AREA (from the Latin, in which it signified, first, a threshing-floor; later, a vacant place bounded on all sides, or before a public building); in geometry, the superficial contents of any figure; in geography, the contents of any surface. The amount of the oceanic area of our globe is 160,152,000 square miles; and of the different parts of the world as follows:—

	square miles.
Polynesia, } Oceanica, {	100,000
Australasia, }	3,000,000
Asia,	11,500,000
Europe,	3,020,000
Africa,	8,000,000
America, Greenland, &c. . .	13,220,000

Amount of land area, 38,840,000
This, with the oceanic area, 160,152,000
gives, as the amount of the }
area of the earth, } 198,992,000

From which it appears, that the surface of the land on our globe does not amount to the one fourth part of the entire superficies of the earth. Very interesting tables on the areas of the different zones, seas and countries, with valuable remarks on the same, have been given to the public in Mr. Darby's View of the U. States, historical, geographical and statistical; Philadelphia, 1828. The areas given above, as well as those which follow, are taken from his work. We should mention, however, that they are differently estimated by other writers.

The torrid zone contains land in

	sq. miles.
Asia,	3,000,000
Australasia,	1,000,000
Polynesia, or Oceanica,	100,000
Africa,	5,000,000
South and North America,	4,500,000

Total, 13,600,000

Land area of the southern temperate zone.

Australasia,	1,400,000
Africa,	640,000
South America,	1,520,000

Total, 3,560,000

Land area of the northern temperate zone.

Asia,	7,600,000
Europe,	3,020,000
North America, Greenland, &c.	5,000,000
Africa,	2,360,000

Total, 17,960,000

Land area in the northern polar circle.

Asia,	900,000
Europe,	20,000
North America, Greenland, &c.	2,600,000

Total, 3,520,000

Land area in the southern polar

circle, 200,000

But it is doubtful whether there are, in reality, 200,000 square miles of land within the antarctic circle.

ARELAS, or ARELATUM; the present *Arles*; in ancient geography, a town of Gallia Narbonensis, situated on the Rhone. It was a favorite place of the Romans, and hence called *Gallula Roma*. A. was the chief city of the kingdom of Arelat or Arles, which consisted of the duchy of Burgundy, with Provence, and existed for a short time in the 9th century. (See *Burgundy*.)

AREMBERG; a place with 490 inhabitants, in the mountains of the Eifel, near Cologne, now belonging to the Prussian grand-duchy of the Lower Rhine. The

dukes of A. derive their name from this place. Maximilian II made this house princes, and Ferdinand III, in 1644, dukes. By marriage and inheritance, the dukes became very rich. The peace of Luneville deprived this house of large possessions, and bestowed on it, in return, a portion of Westphalia. The present duke of A., Prosper, lives in Vienna. He belonged to the confederation of the Rhine, but, in 1810, lost his sovereignty, by Napoleon's incorporating his dukedom with France and Berg. In 1808, he married a niece of the empress Josephine, Stephanie Tascher de la Pagerie, whom Napoleon elevated to the rank of a French princess. In 1816, they were divorced. Since 1815, the duke is, on account of some of his mediatised possessions, a peer (*Standesherr*) of the Westphalian estates in Prussia, and, on account of other possessions, member of the house of lords in Hanover. George IV, May 9, 1826, elevated the duke's possessions in Hanover (about 700 square miles, with 39,500 inhabitants) to a dukedom, called *Artemberg-Meppen*. The duke is also a grandee of Spain, of the first class. All the possessions of the duke, in Germany, contain about 954 square miles, and 79,100 inhabitants. He has also large estates in France, and extensive tracts of forest in the Pyrenees. The ducal house is of the Catholic faith.

ARENA. (See *Amphitheatre*.)

ARENDT, Martin Frederic. This learned man, renowned for his scientific travels through a large part of Europe, was born at Altona, 1769, and died of the palsy, in the neighborhood of Venice, 1824. Being recommended by count de Reventlow, in 1797, he was appointed an *élève* in the botanic garden at Copenhagen. But his predilection for the study of antiquities led him to the library of the university, where, in the most piercing cold, he spent whole hours in examining the collections of *Arnemagne*. He travelled, in 1798, to Finmark, under the royal patronage. He made accurate observations in Norway and other countries, which had been visited by no stranger before him. He was to have collected living plants and seeds, but he brought back little or nothing, and was therefore discharged. He began his antiquarian collections in Norway, 1799 and 1800. He then resided again in Sweden, in Rostock, in Paris, and in Venice. A part of his papers, drawings and treatises, all containing researches respecting northern antiquities, he deposited in the library at

Copenhagen. He also published some separate treatises in Paris, and in various cities of Sweden, Germany and Denmark. Afterwards, he travelled through Switzerland, Spain, Italy and Hungary. He lived on the charity of strangers, and slept often in the open air, without suffering any inconvenience. He carried all his papers with him. The persecutions which he endured at Naples, on a suspicion of Carbonarism, contributed much to hasten his death.

ARENS, or **ARENSHADE**; a district of Denmark, in the duchy of Sleswick, through which runs the famous wall called *Danneuske*, which Gottric, king of Denmark, built, in the 9th century, across the country from Hollingsted to the Sley (an extent of 46 miles), as a defence against the inroads of the Saxons and Slavi. The natives of A. were the first in the country who professed Christianity, and their church, built in 826, was demolished several times by the idolaters.

AREOPAGUS; the oldest of the Athenian courts of justice, and, at the same time, the most famous for its respectability, purity and love of justice. It obtained its name from its place of meeting, on the hill of Mars, near the citadel. The establishment of this court is ascribed, by some, to Cecrops, by others, to Solon; from the latter, however, it seems to have only received a better constitution and more important privileges. Of how many members it consisted, is not now known. A seat in it was held for life. The members were men who had formerly been archons, had rendered themselves worthy of this honor by the honest and diligent execution of their office, and whose character and conduct had been subjected to a particular examination. Aristides called the areopagus the most sacred tribunal of Greece; and Demosthenes assures us, that they never passed a sentence in which both parties did not concur. The crimes tried before this tribunal were wilful murder, poison, robbery, arson, dissoluteness of morals, and innovations in the state and in religion; at the same time, they took care of helpless orphans. The other states of Greece, also, submitted their disputes to the judgment of the areopagus. Its meetings were held in the open air, and in the night time. After the investigation of a case, the votes were collected. Till the government of Pericles, this court of justice retained its purity inviolate; it was first encroached upon by his causing himself to be made a member, without having been archon.

It retained its respectability, however, for a long time, but sunk, gradually, with the decline of Athens.

AREQUIPA; a city of Peru, and capital of a province of the same name; 180 miles S. of Cuzco, 340 N. W. of La Plata; lon. 71° 48' W.; lat. 16° 30' S.; pop. stated from 24,000 to 40,000. It is situated in a fertile valley, and is elevated 7775 feet above the level of the sea. Behind the city rises 3 lofty mountains, one of which is called the *volcano of Arequipa*, or *peak of Misté*, and is one of the most elevated summits of the Andes. The houses are well built of stone, are vaulted, and are much decorated on the outside. It contains a cathedral, a college, an hospital, 3 nunneries, 6 convents, &c. It is subject to frequent earthquakes; but this evil seems to be overbalanced by the mildness of the climate, and the beauty and fertility of the country round about. Aranta is the port of A.

ARES. (See *Mars*.)

ARESKOUI, or **AREOUSKI**; the god of war among some of the American Indians.

ARETHUSA. 1. One of the Hesperides. —2. A daughter of Nereus and Doris, first a nymph of Diana, then a famous fountain of the island Ortygia, which comprises a fourth part of the city of Syracuse. (Respecting her metamorphosis into a fountain, see *Alpheus*.) As Theocritus composed his idyls on her banks, she is often made the muse of pastorals.

ARETIN (Christopher), baron of; born at Ingolstadt, December 2, 1772; studied at Heidelberg, under the then professor, now minister of justice, von Zentner, and afterwards at Göttingen and Paris. He was, at one time, involved in the affairs of the Illuminati. He early entered into the public service. In 1799 and 1800, he urged the abolishment of the feudal estates, and the assembling of the diet. In the contest of the Bavarian states with the government, in 1800 and 1801, he was very active as a writer. In 1803, after the abolition of the monasteries, he was appointed commissioner, by the government, to examine their libraries; in 1804, he was made vice-president of the academy of sciences; in 1806, chief director of the library of Munich, and, in 1807, secretary of the first class of the academy of sciences. He now published, with some other persons, from 1804 to 1806, a daily paper, the *Aurora*, and afterwards, as a continuation of the well known *Leipziger Allgem. Liter. Anzeiger* (Leipsic Universal Literary Informer), the *Neuer Lit. An-*

zeiger (New Literary Informer); also, Decisions of the Courts of Love, and a History of the Jews in Bavaria, 1803; Oldest Traditions respecting the Birth of Charlemagne, 1803; Memoir on the History of the Divining Rod, 1807; the Earliest Consequences of the Art of Printing, exhibited in the History of the World, 1809; Historical and Literary Memoirs (*Beiträge*), particularly from the Treasures of the Library at Munich, 7 vols.; Introduction to the Theory and Practice of Mnemonics, 1810; Historical Literature of Bavaria, 1810; Information on the History of Bavaria, from hitherto unused, and mostly foreign Sources, 1811; Annals of the Administration of Justice in Bavaria, 1813 and 1818; History of the 13th Article of the Act of the German Confederation; and many other works on the politics and literature of Bavaria. One of his works excited a long and violent contest between the learned men of Munich, at the end of which A., by order of the king, laid down his former offices, and, in 1811, went to Neuburg, as first director of the court of appeal; in 1813, he became vice-president. His pamphlet, Saxony and Prussia (in favor of Saxony), excited uncommon attention, and drew upon him much persecution. In 1819, he was chosen member of the chamber of deputies in the Bavarian diet, and was one of the most influential men in the assembly. In the same year, he became a member of the society for collecting the ancient history of Germany. He died, Dec. 24, 1824, at Munich, in the office of president of the court of appeal in the circle of Regen.—His brother, Adam, has also held high offices under the government, and has published several works, but not under his name. Most of these relate to the fine arts. He has one of the largest collections of engravings, and some masterly paintings.

ARETINO, Guido, or Gui; a Benedictine monk of the 11th century, born at Arezzo. He is said to have first reduced the science of music to a fixed system, and to have been the inventor of the monosyllables of the *solfeggio*,—*ut, re, mi, fa, so, la*,—drawn from the words of a Latin hymn. It is far from improbable, that Aretino was merely the restorer of the true principle of the ancient Greek music, with which, in the course of his studies, he became acquainted, through sources which have escaped modern research. It is unnecessary to add, that the monosyllable *si*, whence the modern scales of the two modes, major and minor, is a later

invention.—The syllables *ut, re, mi, &c.*, are taken from a hymn of St. John, composed by Paul, in 770 :—

*Ut queant laxis Re sonare fibris
Mi ra gestorum Fa muli tuorum,
So lve polluti La biis reatum.*

ARETINO, Leonard; a very learned Italian historian, born at Arezzo, in Tuscany, in 1370. At the period of the revival of learning, he was a very distinguished scholar, and, being chosen secretary to the republic of Florence, amassed a large fortune. He died in that capital, highly respected, in the year 1443. He translated Aristotle's Ethics and Politics, and Plutarch's Lives, into elegant Latin. His original works are also in Latin, amongst which a History of Florence (folio, 1476), On Studies and Letters (1642), Epistles (republished in 1741, 8vo.), with his life by Melius, are particularly esteemed.

ARETINO, Pietro, one of the most famous Italian authors of the 16th century, who was indebted for the greatest part of his fame to the licentiousness of his pen. He was born at Arezzo, 1492, the natural son of a nobleman, whose name he never bore (for the name A. is expressive of his birth-place), and, from a bookbinder's apprentice, became an author, who soon gained the favor of kings. He was, indeed, called their *scourge*, but he was profuse in his adulation to them. He had warm admirers, notwithstanding the malignity and severity of his satires. Notwithstanding his ostentatious pride and bitterness, he submitted to such treatment as men never practise except against the contemptible and despised. Although he was so licentious a writer, that his very name is expressive of indecency and profligacy, he wrote many works of devotion, and gave the preference to the latter, if his own interest required it. His reputation gained for him the name of *divine*, by which even Michael Angelo addressed him; and his ostentation led him to adopt the name as his title. He caused medals, therefore, to be struck for him, with the inscription, *Divus Petrus Aretinus, flagellum principum*, and presented them to several princes. Being banished from Arezzo, on account of a sonnet against indulgences, he went to Perugia, and thence to Rome, where he entered into the service of Leo X., and afterwards of Adrian VI. On account of the 16 indecent sonnets, which he composed as illustrations of as many designs of Giulio Romano, he was obliged to leave Rome. Giovanni de' Medici invited him to his court, and took him to Milan, where

he found an opportunity to insinuate himself into the favor of Francis I. After having again visited Rome, he returned to his protector, Giovanni de' Medici, who grew more and more attached to him, and died in his arms of his wounds. In 1528, A. went to Venice, where he acquired powerful friends, among whom was the bishop of Vicenza, who reconciled the pope to him, and recommended him to Charles V so strongly, that he was presented by him with a golden chain. Francis I, wishing to be equally generous, gave him a similar chain. But when Charles afterwards settled on him a pension of 200 dollars, which liberality Francis did not equal, the former alone received all the encomiums which he had formerly divided between them both. The duke of Leve also gave him a considerable pension. He gained, besides, according to his own assertion, 1000 dollars in gold, every year, by his writings, together with a ream of paper and a flask of ink. Nicolo Franco, as licentious an author, though not so learned, aided him in his labors. A.'s fame was extended to such a degree, that he received letters from all parts of Italy, and his company was much sought. By his devotional writings, he regained the favor of the Roman court, and Julius III, who was also from Arezzo, was so pleased with a sonnet addressed to him by his countryman, that he sent him 1000 crowns of gold, and made him knight of St. Peter. Three years afterwards, he was introduced, by the duke of Urbino, to the pope, who received him not only with honor, but even with tenderness. Yet he could not obtain the dignity of cardinal, for which he made very great exertions. The nature of his death corresponded to his life. He had some sisters at Venice, who equalled their brother in licentiousness. As a person was one day relating to him one of their adventures, he was so amused that he burst into a fit of laughter, and, losing his balance, fell to the ground, and died soon after, in 1556, aged 65. He had received from nature a happy constitution. He was born with a taste for the arts, and practised several with success. But, above every thing else, he loved money, a good table, and handsome women.—His works consist of several religious compositions; 5 comedies and a tragedy, the former full of wit and genuine comic humor, the latter not without merit; the licentious *Ragionamenti*, and *Putiana errante*; 16 profligate *Sonetti lussuriosi*, several pieces in rhyme,

stanze, *capitoli*, partly laudatory, and partly licentious and satirical: some unfinished epics complete the list. The academicians of la Crusca counted A. among the classic authors of the nation. He deserved this honor less, however, for the purity than for the boldness, skill and originality of his style.

AREZZO (anciently *Aretium*); a city in Tuscany, seated on the declivity of a mountain, in the middle of a fruitful plain, 17 miles from Città di Castello, and lying between it and Florence. It had gone almost entirely to decay before Cosmo de' Medici took it under his protection. A. is the birth-place of Mæcenas, Petrarch and Pietro Aretino. It contains now about 8000 inhabitants.

ARGAL; crude tartar, in the state in which it is taken out of empty wine-vessels.

ARGALI (*ovis ammon*); mountain, or wild sheep. This animal is regarded with propriety as the savage stock whence the endless varieties of domestic sheep are descended; though it is difficult, from an inspection of the A., to conceive how so wild and energetic an animal could, by any management, be converted into the imbecile and helpless creatures of which our flocks are composed.—In size, the A. equals the common deer, and in port and bearing resembles the wild goat, though his huge, laterally-twisted horns give his head a very marked similarity to that of the common ram. These horns are very large, arise near the eyes, curve first backwards and then forwards, and have the points directed forwards and outwards; from their base, they are transversely waved or wrinkled for half their length, the remainder being nearly smooth. The horns of the female are more like those of the common goat, rising directly upwards, and curving gently backwards, especially towards the extremity. In summer, the A. is covered with harsh and rather short hair, generally of a grayish-yellow, having a blackish or reddish stripe along the back, and a large spot of the same color on the rump. The inferior parts of the body, and inside of the thighs, are of a pale reddish-white; in winter, the color is a deeper red, with a greater whiteness about the muzzle, throat and belly.—The mountain sheep is found in considerable numbers on the elevated ranges of northern Asia, in the deserts or steppes of Siberia, the mountains of California, and the Rocky mountain range of America. They live in herds or families, consisting of a male with the females and

young, and seek their food on the lofty elevations, covered only with lichens or small shrubs. They are shy and fearful, and, when disturbed, retreat with a swiftness and agility which renders pursuit hopeless, as they bound from rock to rock with security, and are soon lost to sight. It is by stealing upon them against the wind, or lying in ambush near where they must pass, that the hunter is enabled to make them his prey. In the spring of the year, when under the influence of sexual excitement, the males acquire a warlike disposition, which induces severe and obstinate combats for the possession of the females.—The A. was first satisfactorily made known as an inhabitant of America by the expedition of Lewis and Clarke, who brought the skins of a male and female from the Rocky mountains, which are still preserved in the Philadelphia museum. The A. had been previously indicated as an inhabitant of California by Veregas. The species is called *bighorn* by the Indians and traders. The Indians make various domestic utensils of these large horns, and apply their skins to the same purpose as those of the deer.—The domestication of the sheep is coeval with the infancy of the human family; and it is not, therefore, surprising, that the domesticated breeds should differ so materially from the parent stock, when we know what can be accomplished by cross-breeding, even during the life of a single man. When domesticated soft-fleeced sheep are taken to warm climates, this fleece is speedily shed, as we have repeatedly witnessed, and a coarse, reddish hair takes its place. In this condition, the resemblance of the animal to the A. becomes very striking.

ARGAND LAMP. (See *Lamp*.)

ARGENS (Jean Baptiste), marquis d'; born, 1704, at Aix. He was designed for the law, but, following his inclination, entered into the military service at the age of 15. His passion for Sylvia, an actress, induced him to leave the service, and France also, to be with her in Spain. But he was arrested, brought back to Provence, and sent to Constantinople with the French ambassador. His residence in Turkey was marked with adventures. After his return, he entered the army again. In 1734, at the siege of Kehl, he was wounded, and afterwards, before Philippsburg, rendered incapable of further service by a fall from his horse. Disinherited by his father, he became an author, and went to Holland, that he might write with more freedom. Here he published his

Lettres Juives, Lettres Chinoises, and Lettres Cabalistiques. Frederic II, then crown-prince, wished to become acquainted with the author, and receive a visit from him. He replied, that he should be in danger from Frederic William I, with his six feet six (this king being in the habit of compelling tall men to join his regiment of grenadiers). After the death of the king, Frederic again invited him. D'A. appeared in Potsdam, received the place of chamberlain, and that of director of the fine arts, in the academy, and became the king's daily companion, who loved him for his frankness, but ridiculed his melancholy humor. When almost 60 years old, he fell in love with the actress Cochois, and married her without the knowledge of Frederic, who never wholly pardoned him for this act of rashness. After the seven years' war, being on a journey to France, the second since his residence in Prussia, to visit his family, he found, by the way, a forged ordinance of the archbishop of Aix, in which he was excommunicated as a blasphemer. This paper, at first, made him very melancholy, till he perceived the source of it, by the signature, in which Frederic had, by mistake, written *bishop*, instead of *archbishop*. After his return, he was obliged to bear, more than ever, the king's satirical humor. He afterwards received permission to take a journey into Provence, where he died, in 1771. Frederic II caused a monument to be erected to him, in the church of the Minorites, in Aix.—His numerous writings, the fruits of an unrestrained freedom of thought, once had some reputation, but now, though instructive, are no longer esteemed, because they are deficient in purity, taste, critical discernment and sound views.

ARGENSON (de Voyer), marquis d'; born at Paris, 1771; son of the lieutenant-general d'Argenson, and descended from one of the most distinguished families in the service of the state. His great-grandfather was lieutenant of the police; his grandfather, a long time, minister of war. His great uncle, minister of foreign affairs, was the friend of Voltaire, and a philosopher, as well as a politician. This appears from his *Considérations sur le Gouvernement*, complimented by Rousseau in his *Contrat Social*. The courtiers of Louis XV called him *d'Argenson la bête*. He wrote, in two vols., *Loisirs d'un Ministre*. His son, the marquis de Paulmi, was governor of the arsenal, after having been ambassador to Venice and Poland.

He left at his death the *Bibliothèque de l'Arсенal*, containing 150,000 volumes, which was subsequently purchased by the count d'Artois. The marquis de Paulmi published, in 80 vols., *Mélanges Extraits d'une Grande Bibliothèque*, in which he exhibited an accurate personal acquaintance with the treasures of the library. The present member of the chamber of deputies was studying at Strasburg, at the time of the king's flight to Varennes, and immediately entered into the military service of his country, as the aide-de-camp of Lafayette. When Lafayette was obliged to flee from France, d'A. retired to his estates, married the widow of the prince Victor de Broglio, mother of the duke de Broglio, peer of France, and occupied himself in the education of his children, and in agriculture, in Poitou, where he was a friend to the poor, and an example of agricultural industry. As president of the electoral college of the department of Vienne, in 1803, he neglected to send a deputation with congratulations to the emperor. In 1804, he was again chosen, and made a member of the deputation to the emperor. This occasioned his appointment as prefect of the department of deux-Nèthes, where he distinguished himself by defending the constitutional administration, and gave in his resignation when he saw himself unsupported by the ministry. After Louis XVIII ascended the throne, he was appointed prefect of the department of the Bouches-du-Rhône. He refused the station, however, because France had no constitution. Being chosen into the chamber of deputies, in 1815, he signed a protest in July of the same year, when the foreign troops in Paris closed the entrance to the chamber. In the electoral college of Vienne, he declared the power of the people to modify the constitution an inalienable right, before he took the oath prescribed by law. In 1815, he opposed the measures of the ministry, which they declared necessary for the public security. In 1816 and 1817, he opposed several projects of the government, and maintained that the church, and other establishments of public utility, should be supported by the community, and not by the state, and that no arbitrary departure from the laws was necessary. In 1818, he defended the position, that the charter was, in fact, a limitation of the rights of the nation, and not a concession. He always spoke, with the liberal party, in favor of institutions of general utility, and against all exclusive privileges. He

maintained the dangers of a privileged clergy in France, and the necessity of the free importation of corn: he called the opposite a premium for rich, ignorant or idle landlords. In 1819 and 1820, he defended the principles of the general good, in the debates on the new laws.

ARGENT (French for *silver*, from the Latin *argentum*); a word used in heraldry, and in several terms of art employed by the goldsmiths.

ARGENTEUS, CODEX; a MS. copy of the four Gospels, so named from its silver letters. It is preserved in the university of Upsal, and is a copy from the Gothic version of bishop Ulphilas, who lived in the 4th century. It is in quarto, written on vellum, stained with a violet color. On this ground the letters, all uncials, or capitals, are painted in silver, except the initial letters, which are in gold. This MS. was discovered, in 1597, in the Benedictine abbey of Werden, in Westphalia, and, after several changes of owners, was sent, as a present, to Christina, queen of Sweden. Vossius, a Dutchman, either received it from her, or stole it. Count Magnus Gabriel de la Gardie bought it, at Vossius' death, for £250, and sent it to Upsal. Three editions of it have been given to the public; at Dort, 1655; Stockholm, 1672; the Clarendon press, 1750.—Some fragments of the Gothic version of St. Paul's Epistle to the Romans were discovered by Knittel, in 1756, in a *codex rescriptus*, in the ducal library of Wolfenbüttel. It seems to have been written in the 6th century; and Angelo Maio (q. v.) lately discovered fragments of the Mæso-Gothic translation of the Epistles of St. Paul, made by Ulphilas; also a *codex rescriptus*. These discoveries are interesting additions to the above-mentioned codex.

ARGENTIERA, or KIMOLI (the ancient *Cimolus*); a small island in the Archipelago, which belonged to the government of the capudan pacha. It is rocky and sterile. The inhabitants (Greeks) live in one village, and are very poor. Formerly, silver mines were worked here, whence its name. The whole island is covered with a sort of chalk, called *Cimolian earth*, which is used in the washing and bleaching of linen. Lon. 24° 42' E.; lat. 36° 47' N.

ARGIPHONTES. (See *Argus*.)

ARGIVES. (See *Argolis* and *Argos*.)

ARGO. (See *Argonauts*.)

ARGOLIS; the eastern region of Peloponnesus; bounded N. by Achaia and Corinth; N. E. by the Saronic gulf; W. by Arcadia; S. by Laconia, and S. W. by

the Argolic gulf. The Greeks inhabiting it were often called, by the ancient authors, *Argives* and *Argians*. Hills and mountains alternate with fruitful plains and valleys. According to the monuments of Greek mythology, A. was peculiarly rich, and early cultivated. Inachus, about 1800, and Danaus, about 1500 years B. C., came hither with colonists from Egypt. Here reigned Pelops, an emigrant from Asia Minor, from whom the peninsula derives its name. Here, too, was afterwards the seat of government of Atreus and Agamemnon, Adrastus, Eurystheus, Diomedes. Here Hercules was born. In the morass of A. he slew the Lernaean hydra, and, in the cave of Nemea, subdued the ferocious lion. In the earliest times, it was divided into the small kingdoms of Argos, Mycenæ, Tirinthus, Trœzene, Hermione and Epidaurus, which afterwards formed free states. The chief city, Argos, has retained its name since 1800 B. C. Its inhabitants were renowned for their love of the fine arts, particularly of music. Here, and in Delphi, statues were erected to the brothers Biton and Cleobis, who fell victims to their filial piety. In 1825, a high school and a monitorial school were established at Argos. Near this city lies Napoli di Romania (q. v.), the ancient *Nauplia*, with an excellent harbor, and the most important fortress of the peninsula. On the site of the present village Castri, on the Ægean sea, formerly lay the city Hermione, with a grove dedicated to the Graces; opposite is the island of Hydra (q. v.) Near the city of Epidaurus, the watering-place of ancient Greece, on the Ægean sea, Æsculapius (q. v.) had his temple. At Trœzene, now the village *Damala*, Theseus was born.

ARGONAUTS; those heroes of ancient Greece who performed a hazardous journey, through unexplored seas, to Colchis, in quest of the golden fleece. Æson, king of Iolcos, in Thessaly, enfeebled by age, had abdicated the throne in favor of his son, Jason, and appointed his brother-in-law, Pelias, to administer the government during his son's minority. At the time fixed, Jason appeared to demand his father's kingdom. Pelias, apparently ready to resign the throne, required of him first to bring from Colchis the golden fleece of the ram, on which Phryxus and Helle (q. v., under *Althamas*) had escaped the persecutions of their step-mother, Ino; for Phryxus, having sacrificed the ram, had hung up the fleece in a consecrated grove at Colchis. The ambitious youth,

unconscious of the treacherous nature of the proposal, engaged to accomplish the adventure; and the most valiant heroes of Greece took part with him. Hercules, Castor and Pollux, Peleus, Admetus, Neleus, Meleager, Orpheus, Telamon, Theseus and his friend Pirithous, Hylas, and many others. They sailed with favorable winds, from the promontory of Magnesia, in a vessel called the *Argo*, built at the foot of mount Pelion, in Thessaly, superior to all ships previously built in size and equipment. Tiphys, skilled in navigation, managed the rudder, and the sharp-sighted Lynceus explored the seas for the place of their destination. Orpheus elevated the courage of his companions, when danger threatened, by music and songs. When a tempest broke upon them, as he was initiated into the mysteries, he made vows, with the rest of his companions, to the Samothracian deities, upon which the storm was allayed; and, to show the interposition of the gods by a miracle, two stars appeared over the heads of the Dioscuri. (See *Castor*.) They happily reached the harbor of Lemnos, where they remained 2 years. The women of Lemnos, instigated by the angry Venus, offended with their husbands, and oppressed by their Thracian concubines, avenged themselves by the murder of their husbands, and detained among them the welcome strangers. At length they sailed to Samothrace, where, according to their vows, they caused themselves to be initiated into the mysteries there. Then they landed at Troas. Here Hylas rambled, and lost his way, and Hercules, who went in search of him, remaining too long on shore, the vessel sailed without them. Telamon, also, left them here. Thence they went to the city of Cyzicus, where the king received them hospitably. But at night, being forced back by a storm, they were taken for enemies; a contest followed, in which Jason slew the king, in consequence of which Rhea, the guardian goddess of the island, detained the *Argo* by magic. Having appeased the angry deity, they sailed to the east, and landed at Bebrycia. Driven by a storm to the shores of Thrace, the Argonauts sailed thence to Salmydessus, where the blind soothsayer, Phineus, was king. Phineus gave the strangers directions, and a guide to conduct them through the Cyanæan rocks, which, driven furiously against each other by the winds, dashed in pieces vessels passing through them. Having arrived at the rocks, in compliance with the advice of Phineus, they

caused a dove to fly through before them, and followed, rowing with all their strength, while Orpheus played on his lyre. The rocks stood firm, and the danger was escaped. The last adventure awaited them at the island of Aretias (or Dia). Here they found the Stymphalides, birds which shot their feathers like arrows, and from which the heroes could only protect themselves by a violent clashing of weapons. Having driven away these dangerous monsters, they met with the sons of Phryxus, who, having been sent by Æetes to Orchomenus, to take possession of their father's inheritance, had been forced hither by storms. They relieved these sufferers, and received from them much useful information. At last, the shore of Colchis appeared in view; they landed, at night, at the mouth of the Phasis. King Æetes, previously informed of the design of the strangers, and fearing their power, did not refuse, absolutely, to deliver the golden fleece, on which his life depended, but charged Jason with 3 labors, by which he hoped to destroy him. Jason was to yoke the two fire-breathing bulls of Vulcan to a ploughshare of adamant, and to plough with them 4 acres of land consecrated to Mars, never before turned up. He was then to sow in the furrows the remaining serpents' teeth of Cadmus, in the possession of Æetes, and to kill the armed heroes which they produced; at last, to fight with and slay the dragon that guarded the golden fleece. All 3 labors he was to accomplish in a single day. To rescue the hero, Juno and Minerva, who had instructed Medea, the daughter of Æetes, in magic, infused into her an ardent love for Jason, and, in return for a promise to conduct her home as his bride, she gave him a mixture to anoint himself with, a stone to throw among the formidable heroes sprung from the serpents' teeth, and herbs and a drink to lull to sleep the dragon. Thus equipped, in the sight of the king and assembled people, Jason yoked the formidable bulls, and ploughed with them the fatal field, sowed the serpents' teeth, and threw among the armed host that arose the stone given him by Medea; upon which they turned their weapons against one another, and, in a furious conflict, all perished. Æetes, terrified, commanded him to delay the last adventure. Contriving another plan, he resolved to murder Jason and his companions, and to burn the sacred Argo. Being informed, by Medea, of the king's design, Jason hastened, by

night, to the consecrated grove, lulled to sleep the dragon, by a magic potion, and took the golden fleece from the oak on which it hung; thence he retired in haste, with Medea and his companions, to his ship. The next day, Æetes, perceiving the robbery of the grove, and the flight of the strangers, embarked on board a vessel to pursue them. At the mouth of the Danube, they were within sight of one another. Here, also, Medea averted the threatening danger, by killing her brother, Absyrtus, and strewing on the shore his mangled limbs. The melancholy sight detained the unhappy father, who quitted the pursuit to collect the bloody limbs of his beloved son. As Phineus had advised the Argonauts to return another way, they now sailed up the Danube, carried the lightly-built Argo many miles over mountains and valleys, to the shore of the Adriatic sea, and here again embarked. Then the voice of an oracle sounded from the Dodonean mast of the Argo—"You shall not kiss the shores of your country, till Jason and Medea have atoned for the murder of Absyrtus, and appeased the goddesses of vengeance." Upon this, they directed their course to the port of Æca, to Circe, sister of Æetes. She, however, refused them expiation, but directed them to the promontory of Malea, where they might obtain it. On their voyage, they encountered the frightful Scylla and Charybdis, the alluring Sirens, and a fearful storm not far from the coast of Libya. Then they came to Crete, where the giant Talos, who guarded the island, opposed their landing. A single vein ran from his head to his heel, and was closed below by a brass nail. Medea gave him an intoxicating potion, and opened the vein, that he might bleed to death. At last, they reached the long-wished for promontory of Malea; their crime was expiated, and, without further misfortune, the Argo arrived at the port of Iolcos. On the isthmus of Corinth, Jason consecrated his ship to Neptune, and it afterwards shone as a constellation in the southern part of the heavens. Thus the expedition terminated gloriously. But, before the heroes parted, they agreed to aid one another in war, and resolved, at certain times, to celebrate public games in honor of Jupiter. These were the beginning of the Olympic games. The further fortunes of Medea and Jason are mentioned under those articles. The tales describing the return of the Argonauts differ very essentially. Several poets of antiquity have celebrated this

adventurous undertaking, which is placed in the middle of the 13th century B. C. We still have, under the name of *Orpheus*, a poem on this subject; another by Apollonius of Rhodes, and one by Valerius Flaccus.

ARGONNE; a former province of France, between the rivers Meuse, Marne and Aisne. St. Menehold was the capital. —*Argonne*, wood of, runs through Upper Champagne and Lower Bar, and is mostly mountainous. It was so desert, that the prince of Condé, who received it, in 1657, as an apanage, and his successors, used it only as a hunting-ground, and place for felling wood, and it became a resort of the smugglers of salt. In order to expel them from the place, the crown purchased the wood, in 1784, for 650,000 livres. This wood became too well known in the unhappy campaign of Prussia, in 1792.

ARGOS. (See *Argolis*.)

ARGUELLES, don Augustin; Spanish ex-minister for the home department (*de la gobernacion de la peninsula*); born, 1775, at Ribadesella, in Asturia; studied at Oviedo, and distinguished himself by fine talents and a lively imagination. After finishing his studies, he was appointed, in Madrid, to the secretaryship of the *interpretacion de lenguas*. Espinosa, who perceived his talents, sent him on important embassies to Lisbon and London. At the breaking out of the war of independence, in 1808, he was at Cadiz, and, from 1812 to 1814, he was chosen, by his province, deputy to the cortes. He labored here on the committee which was intrusted with the charge of drawing up a new constitution of government, and composed the famous report delivered by this committee. His talents excited among the liberals such admiration, that he received the name of the *divine* and the *Spanish Tully*. On the return of Ferdinand, he was arrested, May 10, 1814, and put in prison. When brought to trial, he managed his defence so skilfully, that the judges, though new ones were appointed 5 times in succession, could not unite in his condemnation. At last, the king declared himself judge, caused the acts to be laid before him, and wrote at the bottom, "Ten years punishment in the house of correction in the garrison at Ceuta." On his way thither, he refused the pecuniary aid offered him by some Englishmen, because he would receive nothing from the subjects of a government, which had not, in accordance with its promise, assisted Spain to

preserve its freedom. 14 unhappy men shared the fate of A., among whom was his friend, John Alvarez Guerra, who was sentenced, by the king, to hard labor at Ceuta. By their noble conduct here, they obtained the respect of the people, but were cruelly oppressed by the officers of government, particularly by the bishop. Through his influence at Madrid, the liberals, banished to Alcudia, in Majorca, were put in a place almost uninhabitable on account of its unhealthy air. Here they suffered from the captain-general, Coupigny, so cruel treatment, that, in 4 years, 3 of them died, and 2 lost their reason. The rest were all sick when they were set at liberty. The revolution of 1820 procured A. his freedom and a place in the ministry, which, however, he resigned in 1821, because the king, at the opening of the cortes, March 1, 1821, complained of the weakness of the executive power.—The minister of finance, Canga Arguelles, is not to be confounded with Augustin A.

ARGUIM, or **ARGUIN**; an island on the coast of Africa, not far from cape Blanco, scarcely 2 miles long. Notwithstanding its insignificance, the possession of it was violently disputed, for 87 years, between the Portuguese, Dutch, English and French. After a variety of fortune, it has been at last totally abandoned. *Che sangue pella folia d' alcuni pochi!*—Lon. 16° 20' W.; lat. 20° 30' N.

ARGUMENTUM AD HOMINEM; an argument which presses a man with consequences drawn from his own principles and concessions, or his own conduct.

ARGUS, son of Arestor, or Agenor, or Inachus and Ismene, had a hundred eyes. According to some, his whole body was covered with eyes (hence he was called *Panoptes*), half of which were always awake, while the rest were closed in sleep. The jealous Juno made him keeper of the unhappy Io (q. v.); but Mercury lulled him to sleep with the sound of his flute, and cut off his head; hence Mercury is called *Argiphontes*.—Juno afterwards took his eyes to adorn the tail of the peacock.

ARGYLE, or **ARGYLL**; a county of Scotland, bounded on the south by the Irish sea and the Frith of Clyde. The wealth of the country is dug from the bowels of the mountains, in iron, copper, lead, &c. A. is the seat of a provincial synod. Argyleshire is mostly peopled by the clan of Campbell, and contains a great number of castles and seats belonging to gentlemen who hold of the duke of A., and

boast of their descent from his family. It sends one member to parliament. The population, in 1811, was 85,585. The dukes of A. belong to the family of Campbell, and are at the head of the most powerful clan in Scotland. They hold several hereditary offices under the crown, and are possessed of many royalties.

ARGYLE Rooms; a house in Regent-street, London, a great rendezvous of fashion. In 1818, the royal harmonic institution erected the present building, the façade of which displays very little taste. The *rooms*, properly so called, are 4—a ball-room, a drawing-room, an ante-room, and the grand concert-room. The usual price of tickets for the concerts held here is half a guinea, for which the finest performances may sometimes be heard, and sometimes such as it is difficult for the most patient hearer to put up with, e. g., the music of the 4 Jews, who sung dressed as 4 Tyrolese.

ARIA, in music. (See *Air*.)

ARIADNE; in mythology, a daughter of Minos, king of Crete, who, having fallen in love with Theseus, when he was engaged in an attempt to destroy the Minotaur, gave him, in token of her love, a clue of thread, which served to conduct him out of the labyrinth, after his defeat of the monster. Theseus, on leaving the island, took with him A., but abandoned her on the isle of Naxos, where she was found by Bacchus, who married her, and presented her with a crown of gold manufactured by Vulcan, which was afterwards transformed into a constellation. A. had a son by Bacchus, called *Eumedon*, who was one of the Argonauts.—According to Plutarch, there were two females of the name of A. One of them was espoused to Bacchus on the island of Naxos, and became the mother of Staphylos; the other was abandoned by Theseus on the same island, where she died. Hence were derived the two kinds of feasts, called *Ariadneæ*.

ARIANNA; a small village, 6 miles N. E. of Tunis, remarkable for a fine range of the Carthaginian aqueduct, 74 feet high, supported by columns 16 feet square, which increase in grandeur the nearer they approach the site of Carthage. The stone is all cut in a diamond shape. Near this spot, several ancient *matamores*, or subterraneous magazines for corn, have been discovered within these few years, capable of containing 100 bushels, strongly arched with large square stones. The Moors have already begun to demolish them.

ARIANS; the adherents of the Alexandrian bishop Arius, who maintained about A. D. 318, that Christ, the Son of God, is the most noble of all things created out of nothing, but inferior to God, and produced by his free will. This opinion was condemned in the council of Alexandria, 320, and in that of Nice, 325, by the orthodox church, which attributed to the Son of God perfect equality of essence with the Father (*homousia*, hence *Homousians*), and knew no way of expressing his relation to the Father, but by calling it his *eternal generation*. The articles of the Nicene and of the Athanasian creeds, the latter of which, though fuller, is based on the former, arose from the contest against Arius. Though his party was banished, he found means to procure powerful adherents; and Constantine the Great, from his desire of peace, wished to bring about the restoration of Arius to the Catholic communion, when the latter died suddenly, 336. After his death, his party gained considerable accessions, and Constantine, a short time before his decease, 337, caused himself to be baptized in the Arian mode. Under Constantius, Arianism became the religion of the court, formed its own liturgy, and, after 350, when Constantius ruled alone, it prevailed also in the West, and Rome was obliged to receive the Arian bishop Felix. The divisions among the Arians themselves, in the meantime, prepared a final victory for the Catholic church, which held the former constantly under its anathema. At first, the Semi-Arians, or Half-Arians, whose leaders, Basil of Ancyra and George of Laodicea, were powerful in Syria, approximated to the Catholic creed by maintaining a similarity of essence between the Son and the Father (*homoiousia*, hence *Homoiousians*), and by that means gained the superiority at the imperial court, although Macedonius and the Pneumatomachists (see *Holy Spirit*) belonged to the Catholic party. But the victory of the orthodox was promoted by the excesses of the strict Arians, Aëtius and Eunomius of Cappadocia, together with their numerous adherents, who, in the council at Sirmium, 357, by maintaining that the Son of God is a wholly different being from the Father (hence *Heterusians*, *Anomaeans*), excited even the Semi-Arians against them, and, by restoring the former mode of baptism by immersion, aroused even the opposition of the people. The emperor Julian the Apostate, who, from contempt towards Christianity, tolerated all

sects, ended the contest, and suffered no religious disputes to arise. Arianism again ascended the throne in the East with Valens, 364, and, growing bold, proceeded to acts of violence against the Catholics. But Gratian maintained peace, Theodosius restored the dominion of the ancient faith, and the divisions among the Arians themselves hastened the downfall of their influence and respectability in the Roman empire. After the first half of the 5th century, Arianism was extinct in that portion of the Roman empire which remained under the rule of the emperors. Among the Goths, who had become acquainted with Christianity, about 340, by means of the Arians, it prevailed in the western part of the empire, till the victories of the orthodox Frank Clovis, and the reformation of the church by the Visigothic king Reccared, suppressed it here, also, at the end of the 5th century. About this time, it was destroyed among the Suevi in Spain, among whom it had prevailed for a century. The Burgundians, who received it 450, had already renounced it, at the beginning of the 6th century. It was more difficult to convert the Vandals to the Catholic faith. Ever since 430, they had been strict Arians, and propagated the doctrines of their sect in Northern Africa, even by the severest persecutions. The victories of Belisarius, 534, first put an end to their kingdom, as well as to their separation from the orthodox church. Arianism was maintained longest among the Lombards, who brought it to Italy, and adhered to it firmly till 662. Since that time, the Arians have no where constituted a distinct sect; and, though the Albigenses, in France, in the 12th and 13th centuries, were accused of similar doctrines, and the sects, which, from the 16th century till the present time, have been comprehended under the name of *Antitrinitarians*, have, in reality, maintained the opinion that Christ is inferior to the Father, yet neither of them can be regarded as Arians.

ARICA; a seaport of Peru, and capital of a province; 210 miles N. W. La Plata; lon. 70° 11' W.; lat. 18° 27' S. In this port the silver from the mines of Potosi is shipped for Europe. It is much frequented by vessels, and has a considerable trade with Lima. Near it is a mountain of rock-salt, great quantities of which are dug, and sent to all parts of the coast.

ARIES (*Latin*, a ram); one of the 12 signs of the zodiac; the vernal sign. In the ancient military art, *aries* signified,

also, a battering-ram, an engine with an iron head, to batter and beat down the walls of places besieged. (See *Battering-Ram*.)

ARIETTA. (See *Air*.)

ARIMANES, or **AHRIMAN**; the principle of evil in the Persian theology, which perpetually counteracts the designs of Ormuzd, or Oromazdes, who denotes the principle of good. (See *Demon* and *Zoroaster*.)

ARIMASPIANS; a fabulous people, placed sometimes in Scythia, sometimes on the Rhipæan mountains, and used synonymously with the *Cyclops*.

ARION; the inventor of dithyrambics, born at Methymna, in Lesbos, and flourished about B. C. 625. He lived at the court of Periander, in Corinth, and afterwards visited Sicily and Italy. At Tarentum, he won the prize in a musical contest. Having embarked in a Corinthian vessel, with rich treasures, to return to his friend Periander, the avaricious sailors resolved to murder him. Apollo, however, having informed him in a dream of the impending danger, Arion, in a magnificent dress, with his lyre in his hand, went upon deck, and endeavored to soften the hearts of the crew by the power of his music. The dolphins, attracted by the sound, assembled around the vessel, and listened to his sweet songs, though the avaricious seamen still continued unmoved. A. then resolved to escape the hands of the murderers by a voluntary death, and threw himself into the sea. A dolphin received him on his back, and, while he soothed the stormy billows by the power of his strains, bore him safe to mount Tenarus, whence he sailed for Corinth. The sailors, having returned to Corinth, and being questioned by Periander concerning A., replied that he was dead. Upon this, he appeared before them, and convicted them of their crime, when Periander caused them to be crucified. The lyre of A., and the dolphin which rescued him, became constellations in the heavens. Of the poems of Arion, we have only a hymn to Neptune, which may be found in Brunck's *Analecta*.

ARIOSO, in music. (See *Air*.)

ARIOSTI, Attilio; a composer of eminence, born at Bologna. He is said to have given lessons to Handel in his childhood, in conjunction with whom, and with the celebrated Bononcini, he afterwards produced the opera of *Muzio Scevola*; Ariosti setting the first act, Bononcini the second, and Handel the third. He likewise composed several other ope-

ras in England about the year 1721, at which time the royal academy of music was established; and is said to have introduced into that country, for the first time, the instrument called the *viol d'amour*, on which he performed a new symphony at the sixth representation of Handel's *Amadis*, on the 12th July, 1716, soon after his arrival. He then went abroad, but again returned in 1720, and composed several operas. He once more left England, after publishing a book of cantatas by subscription; and the place and date of his death are unknown.

ARIOSTO, Ludovico, born at Reggio, Sept. 8, 1474, was descended from a noble family. His father was a member of the first judicial court of Ferrara. He was the eldest of ten children. Even in his childhood, he prepared tragedies, which he acted with his brothers; among others, one founded on the story of *Pyramus* and *Thisbe*. In the school of Ferrara, he distinguished himself in his studies. His father designed him for the profession of the law; but, after five years of fruitless application to it, the young man renounced the study, that he might devote himself to literature. He enjoyed the instructions of the learned Gregory of Spoleto. Plautus and Terence, whom he studied with this teacher, furnished thoughts for two comedies, the *Cassandra* and the *Supposti*, which he there planned. His lyric poems, in the Italian and Latin languages, distinguished for ease and elegance of style, introduced him to the notice of the cardinal Ippolito d' Este, son of duke Ercole I. In 1503, Ippolito fixed him at his court, used his counsel in the most important affairs, and took him with him on a journey to Hungary. After the death of Ercole, Alfonso, his son and successor, put the same confidence in A. At this court he began and finished, amid distractions of every kind, in 10 or 11 years, his immortal poem, the *Orlando Furioso*. In 1516, the printing of it was finished. When Ariosto gave a copy to the cardinal, he asked him, "Master Louis, where did you pick up all this trumpery?" In 1517 or 1518, A. was invited to accompany the cardinal Ippolito d' Este on a second journey to Hungary. The unhealthy climate and the infirm health of the poet appeared to him no sufficient apology; and, on declining to attend him, therefore, A. lost forever the cardinal's favor, which gradually passed from coldness and indifference to settled hatred. A. was now received by the noble duke Alfonso, a lover of the arts, who put much confi-

dence in him, but bestowed on him only trifling rewards, and (what seemed more like a punishment than a mark of favor), in 1521 and 1522, commissioned him to quell the disturbances that had broken out in the wild and mountainous Garfagnana. He successfully accomplished this difficult enterprise, and, after three years, returned to Ferrara, where he employed himself in the composition of his comedies, and in putting the last touches to his *Orlando*. He died June 6, 1533, at the age of 58. A. had a good figure, a gentle character, polished manners and an amiable disposition. He had been rich, and he loved splendor. He was obliged to content himself, however, with a small, but convenient and pleasant house, over which he caused the following verses to be inscribed:

Parva sed apta mihi, sed nulli obnoxia, sed non
Sordida, parva meo sed tamen aere domus,

His *Orlando Furioso*, which is a continuation of Boiardo's *Orlando Innamorato*, and cannot be perfectly understood without it, is a perfect epic romance, full of the fairest flowers of poetry, and of freshness and spirit, in which A. far excels even Tasso. The *Orlando* displays a splendid and inexhaustible richness of invention, an ever-changing variety of incidents connected with the talent of lively narration. The activity of a youthful fancy animates the whole work. A. exhibits, also, a wonderful skill in interweaving the episodes, which he continually interrupts, and again takes up with an agreeable, and often imperceptible art, and so entwines them with one another, that it is difficult to give a connected history of the contents of the poem, consisting of 46 cantos. These qualities place him among the great masters of poetry, and have gained for him, among his countrymen, the appellation of *divine*. Besides this great epic, we have some comedies, satires, *capitoli* and sonnets by A., and a collection of Latin poems, in all of which the richness of his genius shines with more or less brightness.

ARISMENDI, Juan Bautista; a distinguished general in the war of Colombian independence. Subsequently to the reduction of Margarita by Morillo, in 1815, A. raised the republican standard anew in 1826, defeated Morillo's garrison in several actions, and regained part of the island. This movement was eminently useful to Bolivar, who, landing in Margarita, from Aux Cayes, restored the wavering fortunes of his country. In 1819,

A. was vice-president of Venezuela, previous to its union with New Grenada.

ARISTÆUS, son of Apollo and Cyrene, was brought up by the Nymphs. The introduction of the use of bees is ascribed to him (hence he is called *Melissæus*), and gained for him divine honors. His love of Eurydice, the young bride of Orpheus, caused her death; for, as she fled from him, along the side of a river, she received a mortal bite from a poisonous snake. He was punished by the loss of his bees. The loss, however, was repaired by new swarms, produced, after nine days, in the bodies of some cattle which he had slain. He was the son-in-law of Cadmus, and father of Actæon. He has been confounded with the Proconnesian Aristæus, who appeared on earth from time to time, e. g., as the instructor of Homer, and, afterwards, as a scholar of Pythagoras. This is explained by the fact, that there was a scholar of Pythagoras of this name, who succeeded that philosopher, and whose whole life was afterwards involved in fable.

ARISTARCHUS; a Greek grammarian, who criticised Homer's poems with the greatest severity, and established a new text; for that reason, severe and just critics are often called *Aristarchi*. He was born in the island of Samothrace, and lived at Alexandria about B. C. 150. Ptolemy Philometor, who highly esteemed him, confided to him the education of his children. After having spent his life in criticising Pindar and other poets, especially Homer, he died at Cyprus, aged 72. —*Aristarchus of Samos*, born B. C. 267, was a famous astronomer, who first asserted the revolution of the earth about the sun. His work on the magnitude and distance of the sun and moon is still extant. He is also regarded as the inventor of the sun-dial.

ARISTIDES, for his strict integrity surnamed the *Just*, was the son of Lysimachus, and descended from one of the most honorable families of Athens. He was one of the ten generals of the Athenians, when they fought with the Persians at Marathon. According to the usual arrangement, the command of the army was held by each of the generals, in rotation, for one day. But Aristides, perceiving the disadvantages of such a change of commanders, prevailed on his colleagues each to give up his day to Miltiades; and to this, in a great measure, must be ascribed the victory of the Greeks. The year ensuing, he was archon, and, in this office, enjoyed so universal a popu-

larity, that he thereby excited the jealousy of Themistocles. This ambitious man, not daring, openly, to attack his rival, contrived to spread a report, that A. was aiming at a kind of sovereignty, and, at last, succeeded in procuring his banishment by the ostracism. It is said, that a rustic citizen, who happened to stand near A. in the public assembly which decreed his banishment, turned to him, without knowing who he was, and asked him to write the name of Aristides upon the shell with which he was going to vote. "Has Aristides injured thee?" inquired he. "No," answered the voter; "but I am tired of hearing him called the *Just*." A. wrote his name, and returned the shell in silence to the voter. He left the city, with prayers for its welfare. Three years after, when Xerxes invaded Greece with a large army, the Athenians hastened to recall a citizen to whom they looked for aid in this emergency. Forgetting every thing but the good of his country, upon receiving intelligence that the Greek fleet was surrounded, at Salamis, by the Persians, he hastened thither with all speed, to warn Themistocles of the danger which threatened him. Touched by his generosity, Themistocles admitted him at once to his confidence, telling him that the report had been purposely spread by himself, to prevent the separation of the Grecian fleet. He also invited him to assist in the council of war, and, having determined on battle, posted him on the little island of Psyttalia, where those, whose ships were sunk during the engagement, found refuge. In the battle of Platea, A. commanded the Athenians, and had a great share in the merit of the victory. It is thought that he was again archon the year following, and that, during this time, he procured the passage of the law by which the common people were admitted to all public offices, even that of archon. On one occasion, when Themistocles announced that he had formed a project of great importance to the state, but which he could not make known in a public assembly, the people appointed A. to confer with him on the subject. The project was to set fire to the combined fleet of the Greeks, which was then lying in a neighboring port, and thereby to secure to the Athenians the sovereignty of the sea. A. returned to the people, and told them that nothing could be more advantageous, but, at the same time, nothing more unjust, than the plan of Themistocles. The plan was at once rejected. To defray the expenses of the

Persian war, he persuaded the Greeks to impose a tax, which should be paid into the hands of an officer appointed by the states collectively, and deposited at Delos. The implicit confidence which was felt in his integrity appeared in their intrusting him with the office of apportioning the contribution,—an office which he executed with universal satisfaction. He died at a very advanced age, and, what most strikingly evinces his integrity and disinterestedness, so poor that he was buried at the public expense. He left two daughters, who received dowries from the state, and a son, who was presented with 100 silver minæ and a tract of wood-land.—*Aristides Elius*, a famous rhetorician, born A. D. 129, in Bithynia, after travelling for some time, settled in Smyrna. When the city was destroyed by an earthquake, A. D. 178, A., by his influence with the emperor Antoninus, had it rebuilt. The inhabitants showed their gratitude for this service by erecting a statue to him. The merit of his orations, of which forty-five are yet extant, consists only in the splendor of the language, by which the emptiness of the matter is tolerably well concealed.—Another *Aristides*, a Theban painter, contemporary with Apelles, flourished B. C. 240. A famous picture of his is spoken of by Pliny, representing a mother, in a captured town, mortally wounded, with an infant sucking at her breast, who, she is apprehensive, will suck blood instead of milk: it became the property of Alexander the Great. Several other very famous pictures of his are also mentioned, for one of which Attalus, king of Pergamus, is said to have given 100 talents. Expression seems to have been the great excellence of this ancient artist.—*Aristides* was also the name of a Christian philosopher in the 2d century.

ARISTIPPUS; the founder of a celebrated philosophical school among the Greeks, which was called *Cyrenaic*, from his native city, Cyrene, in Africa. He flourished 380 B. C. Being sent by his wealthy father to Olympia, probably to take part there in the chariot-races, he heard Socrates spoken of, and was so desirous to receive instruction from him, that he immediately hastened to Athens, and mingled with his disciples. He did not, however, adopt all the principles of this philosopher. Like him, he thought that we should refrain from speaking of things which are beyond human comprehension, and likewise paid but little attention to the physical and mathematical

sciences; but his moral philosophy differed widely from that of Socrates, and was a science of refined voluptuousness. His fundamental principles were, that all human sensations may be reduced to two—pleasure and pain. Pleasure is a gentle, and pain a violent emotion. All living beings seek the former, and avoid the latter. Happiness is nothing but a continued pleasure, composed of separate gratifications; and as it is the object of all human exertions, we should abstain from no kind of pleasure. Still we should always be governed by taste and reason in our enjoyments. As Socrates disapproved of these doctrines, they were the cause of many disputes between him and his disciple; and it was, probably, to avoid his censures, that Aristippus spent a part of his time at Ægina, where he was when his master died. He made many journeys to Sicily, where he met with a very friendly reception from Dionysius the tyrant. The charms of the celebrated *Lais* allured him to Corinth, and he became very intimate with her. When he was reproached with squandering so much money upon a woman who gratuitously surrendered herself to Diogenes, he answered, "I pay her that she may grant her favors to me, not that she may refuse them to another." He said, another time, "I possess her, not she me." (See *Lais*.) Diogenes Laertius is not to be credited, when he says that Aristippus opened a school after he returned to Athens, as we know of no disciple instructed by him. His doctrines were taught only by his daughter, Arete, and by his grandson, Aristippus the younger. Other Cyrenians compounded them into a particular doctrine of pleasure, and are hence called *Hedonici*. The time of his death is unknown. His writings are lost. Wieland's historico-philosophical romance (*Aristippus* and some of his Contemporaries) gives us a lively and highly interesting delineation of the life and doctrines of this amiable sensual philosopher.

ARISTOCRACY. (See *Government*.)

ARISTOGITON; a citizen of Athens, whose name is rendered famous by a conspiracy formed, in conjunction with his friend Harmodius, against the tyrants Hippias and Hipparchus, the sons of Pisistratus. They succeeded in killing Hipparchus (514 B. C.); but, not being seconded by the people, Harmodius was despatched by the guards, and A. secured. Hippias instituted a severe inquisition into the plot, and tortured A. to discover his accomplices; upon which he is reported to

have named all the best friends of the tyrant in succession, and they were immediately put to death. On being asked by Hippias if there were any more, "There now remains," said Aristogiton, with a smile, "only thyself worthy of death." Hippias being expelled three years after, the Athenians paid the greatest honors to the two friends Harmodius and Aristogiton, placing in the forum their statues by Praxiteles, singing hymns to their praise at the Panathenæa, and decreeing that no slave should ever bear their names. (See *Plutarch* and *Thucydides*.)

ARISTOMENES; a young, valiant hero, and leader of the Messenians against the Spartans, B. C. 682. The story of his escape from a deep cavern (into which he had been thrown by the Spartans), by creeping through a fox-hole, is extraordinary, but not well authenticated. Notwithstanding his boldness and heroic courage, he could not prevent the subjection of the Messenians.

ARISTOPHANES; the only Grecian comic poet of whom any pieces have been preserved entire; the son of a certain Philippus, and by birth an Athenian. He appeared, as a poet, in the fourth year of the Peloponnesian war, B. C. 427; and, having indulged himself in some sarcasms on Cleon, at that time a powerful demagogue, was accused, by the latter, of having unlawfully assumed the title of an Athenian citizen. He defended himself before the judges merely with the known verses of Homer,—

To prove a genuine birth (the prince replies),
On female truth assenting faith relies:
Thus manifest of right, I build my claim,
Sure founded, on a fair maternal fame,
Ulysses' son. *Pope's Od.* i. 275—9.

and, when the same accusation was renewed against him, he succeeded in repelling it a second time. He afterwards revenged himself on Cleon, in his comedy of the Knights, in which he himself acted the part of Cleon, because no actor had the courage to do it. This little remains to us of the life of A., who was distinguished, among the ancients, by the appellation of the comedian, as Homer was by that of the poet. Of 54 comedies which he composed, 11 only remain; and in these, without doubt, we possess the flower of the ancient comedy, which, in his last play, the Plutus, borders on the middle; but, in order fully to enjoy them, and not to be offended by the extravagances and immoralities with which they abound, we must be intimately acquainted with ancient customs and opinions. His

pure and elegant Attic dialect, the skill and care displayed in the plan and execution of his pieces, and their various other excellences, have gained for A. the fame of a master. His wit and humor are inexhaustible, and his boldness unrestrained. The Greeks were enchanted with the grace and refinement of his writings; and Plato said, the Graces would have chosen his soul for their habitation. "According to our ideas of decorum," says a late scholar, "we should esteem the soul of A. a fitter residence for the licentious and malicious satyr, or, at least, we should call him, with Göthe, the *spoiled child of the Graces*." He made use of allegory in his attacks on the politicians of the day, as well as in scourging the vices and follies of his age. In a political and moral view, he is a strong advocate for ancient discipline manners, doctrines and art; hence his sallies against Socrates, in the Clouds, and against Euripides, in the Frogs and other comedies. The freedom of ancient comedy allowed an unbounded degree of personal satire, and A. made so free use of it, that nothing, divine or human, which offered a weak side, escaped his sarcasms. He feared the Athenian people so little, that he personated them, under a most miserable figure, in his old Demos. He incessantly reproached them for their fickleness, their levity, their love of flattery, their foolish credulity, and their readiness to entertain extravagant hopes. Instead of being irritated, the Athenians rewarded him with a crown from the sacred olive-tree, which was, at that time, considered an extraordinary mark of distinction. This excessive freedom characterized the ancient comedy, which was long considered as a support of democracy. After the Peloponnesian war, its licentiousness was much restrained; and, in the year 388 B. C., it was forbidden by law to name any person on the stage. At that time, A. produced, under the name of his eldest son, the *Cocalus*, a play in which a young man seduces a maiden, and, after having discovered her descent, marries her. With this play the new comedy began. A., who was very old, appears to have died soon after.—The best editions of his comedies are those of L. Küster, Amsterdam, 1710, fol.; Bergler, Amsterdam, 1760, 2 vols., 4to.; Brunck, Strasburg, 1781, 4 vols., 4to. and 8vo.; Invernizio, Leipsic, 1794, 2 vols., with Beck's commentaries.

ARISTOTLE, one of the most celebrated philosophers of Greece, and founder of the Peripatetic sect, was born at Stagira, in Macedonia, in the 1st year of the 99th

Olympiad (384 B. C.) Nicomachus, his father, claimed descent from Machaon, the son of Æsculapius; Phæstis, his mother, was also of noble extraction. The profession of medicine was hereditary in the family of the Asclepiadæ; and Aristotle's father, who was physician to king Amyntas, had pursued it with reputation and success. He designed his son for the same profession, and probably instructed him in the science of medicine, and the philosophy connected with it. He doubtless owed to his early education his inclination for the study of natural history, of which he is to be regarded as the founder, since he was the first who made accurate observations. After the death of his parents, he went, at the age of 18, to Atarneæ, and lived with one Proxenus, a friend of his family, who did much towards his further education and improvement. Here he staid a short time, and then repaired to Athens. A. remained, during this his first abode in Athens, about 20 years; and, not content to continue merely a hearer of Plato, whose school was then in high renown, he opened a school of rhetoric himself, and became the rival of Isocrates. He probably composed, also, some philosophical works, the fame of which reached the ears of Philip of Macedon. It is certain, at least, that this king wrote to him, soon after Alexander's birth, 356 B. C., the celebrated letter,—“King Philip of Macedon to Aristotle, greeting. Know that a son has been born to me. I thank the gods not so much that they have given him to me, as that they have permitted him to be born in the time of Aristotle. I hope that thou wilt form him to be a king worthy to succeed me, and to rule the Macedonians.” Several writers affirm that A. quarrelled with Plato a short time before the death of the latter, and, in consequence, set up his school in opposition to the Platonic. It is certain that there was some dispute between the two philosophers, but it never came to an open rupture. A. constantly manifested the highest reverence for his teacher, and every where, in his works, speaks with great respect of him, even when he criticises him. The Athenians having declared war against Philip, soon after Plato's death, A. left Athens for Atarneæ, where his friend Hermias was sovereign. Hermias soon after was betrayed into the hands of Artaxerxes, who dishonorably put him to death. A., deeply moved by the fate of his friend, sought to perpetuate his memory by an ode, which is rich in

poetical beauties; and espoused his niece. It appears that A. lived some time after the death of his friend at Mitylene; but, towards the year 343 B. C., he was invited by Philip to his court, to take charge of the education of Alexander, who was then 13 years old. The particulars of his method of instruction are not known to us; but when we see the greatness of mind which Alexander displayed in the first years of his reign,—his command of his passions, till flattery had corrupted him, and his regard for the arts and sciences,—we cannot but think that his education was judiciously conducted. It may be objected, that Aristotle neglected to guard his pupil against ambition and the love of conquest; but it must be recollected that he was a Greek, and, of course, a natural enemy to the Persian kings; his hatred had been deepened by the fate of his friend Hermias; in short, the conquest of Persia had, for a long time, been the wish of all Greece. It was, therefore, natural that Aristotle should exert all his talents to form his pupil with the disposition and qualifications necessary for the accomplishment of this object. Both father and son sought to show their gratitude for the services of such a teacher. Philip rebuilt Stagira, and established a school there for Aristotle. The Stagirates, in gratitude for this service, appointed a yearly festival, called *Aristotelia*. A. continued at Alexander's court a year after his accession to the throne, and is said to have then repaired to Athens. Ammonius the Eclectic says that he followed his pupil in a part of his campaigns; and this seems very probable, because it is hardly possible that so many animals as the philosopher describes could have been sent to Athens, or that he could have given so accurate a description of them without having personally dissected and examined them. We may conjecture that he accompanied Alexander as far as Egypt, and returned to Athens about 331 B. C., provided with the materials for his excellent History of Animals. Here he opened a school of philosophy in the Lyceum, a gymnasium not far from the city. Thither he went twice a day. The forenoon was devoted to his most intimate pupils, when he explained to them the difficult parts of science. In the evening, he admitted all those who were desirous of hearing him, while he discoursed, in a familiar and intelligible way, on subjects more nearly connected with common life. Accordingly, his works also are divided into the *esoteric* or abstruse, and the *exoteric*

or familiar. Alexander aided his extensive studies by sending him presents from Asia, and, as a reward for his services, gave him 800 talents. Notwithstanding this, he afterwards conceived an enmity against his tutor. At the death of that prince, 334 B. C., A. was reported to be concerned in his pretended assassination. The Athenians, now hoping to recover the command of Greece, endeavored to prevail on the other states to take arms against the Macedonians, and Aristotle became an object of suspicion, on account of his connexion with Philip, Alexander and Antipater. The demagogues, supported by his numerous enemies, took this opportunity to accuse him. To escape prosecution, on a charge of atheism, he left Athens with the observation (alluding to the condemnation of Socrates), that he would spare them the guilt of a second crime against philosophy. He retired, with most of his scholars, to Chalcis, in Eubœa, where he shortly after took poison, 322 B. C., on being summoned, as it is said, to appear before the court of areopagus at Athens, to answer to the accusation against him. His character can hardly be acquitted of ambition and dishonesty. (For his doctrines and sect, see *Philosophy, Peripatetic*.)—The works of Aristotle, which were not published during his life-time, first became known to the world when the Romans began to devote themselves to philosophy. The original manuscripts of his works, and those of Theophrastus, were brought by Sylla to Rome, with the library of Apellicon. Andronicus of Rhodes arranged them, and furnished them with indices. Many of his important works are now lost. Those yet extant, according to the edition of Sylburg, 5 vols., 4to., Frankfurt, 1587, which is esteemed the best, are the following:—*Organon; Rhetorica et Poetica; Ethica ad Nicomachum; Ethica Magna; Politica et Economica; Animalium Historia; De Animalium Partibus; Physica Auscultationis*, lib. xiii., *et alia Opera; De Cælo; De Generatione et Conceptione; De Meteoris*, lib. iv.; *De Mundo; De Anima; Parva Naturalia; Varia Opuscula; Aristotelis, Alexandri et Cassii Problemata; Aristotelis et Theophrasti Metaphysica*.—Besides the edition above-mentioned, those of Casaubon and Duval are esteemed. The latest edition is that of Buhle, not yet completed. (See *Philosophy*.)

ARITHMETIC (from the Greek ἀριθμός, number); a branch of mathematics, the object of which is, to combine numbers, according to certain rules, in order to

obtain results which satisfy given conditions. These rules, methodically arranged, form a science, to which the name of *arithmetic* is given. This science is very ancient, and we find it (of course, in very different degrees of perfection) among all nations. Arithmetic, to the best of our knowledge, first attained a high degree of perfection, and was formed into a well-connected whole among the Greeks, from whom the Romans learned it. Still, the arithmetic of the ancients was, by no means, so convenient as the modern systems. The superiority of the modern systems is owing, in a great degree, to our system of notation, which deserves to be called one of the sublimest inventions of the human mind. A great number of works on arithmetic have been published. The French, who excel all nations in popular treatises on mathematics, have the best school-books in the department of arithmetic. Those of Lacroix, Clairaut, Bezout, Mauduit, are excellent for persons who wish to pursue mathematical studies to a considerable extent, or to devote themselves to engineering, military or civil; while those of Gremillet, Querret, Longuère, Juvigny, are better fitted for young persons, who intend to pursue commerce or practise the mechanical arts. Among the English treatises, that of Walsh is a good one. In German, those of Fischer and Busch deserve to be mentioned. Fischer's is, in many respects, excellent. A very complete treatise on arithmetic is to be found in the *Encyclopædia Metropolitana* (London), a work which is not yet completed.

ARIUS. (See *Arians*.)

ARK; the name applied, in our translation of the Bible, to the boat or floating edifice in which Noah resided during the flood or deluge; derived, undoubtedly, from the Latin *arca*, a chest, or vessel. (See *Deluge*.)—In the synagogue of the Jews, the chest, in which the tables of the law were preserved, bore the name of the ark of the covenant. This was a small chest or coffer, 3 feet 9 inches in length, 2 feet 3 inches in breadth, and the same in height, in which were contained the various sacred articles mentioned in the quotations. It was made of shittim-wood, and covered with the mercy-seat, called also the *propitiatory*, as the Septuagint expresses it, ἡ δακρυσιον ἐπιθήκη, that is, the lid or cover of propitiation; because, in the typical language of Scripture, those sins which are forgiven are said to be covered. This lid was made of pure gold: at either end was a cherub: these looked towards

each other, and embraced the whole circumference of the mercy-seat with their expanded wings (*Ex.* xxv. 17, 22, and xxxix. 1—9); between which the Shechinah, or symbol of the divine presence, manifested itself in the appearance of a cloud, hovering, as it were, over the mercy-seat (*Lev.* xvi. 2). From hence the divine oracles were given (*2 Kings* xix. 15; *Isa.* lxxx. 1). The high priest, once every year, on the great day of expiation, appeared before the mercy-seat, to make atonement for the people (*Heb.* ix. 7). The ark was placed in the sanctuary of the temple of Solomon: before his time, it was kept in the tabernacle, and was moved about as circumstances dictated. At the captivity, it appears to have been either lost or destroyed; for the Jews universally concur in stating that, among the things wanting in the second temple, one was the ark of the covenant.

ARKANSAS; a territory or district of country belonging to the U. States, bounded N. by the territory and state of Missouri, E. by the Mississippi, which separates it from the states of Tennessee and Mississippi, S. by Louisiana and Mexico, and W. by Mexico; length, from E. to W., 550 miles; mean breadth, about 220; square miles, about 120,000; between lon. 90° and 100° W.; lat. 32° 40' and 36° 30' N. This is the usual statement of the size of the territory; but the limits of what is properly called *A. territory* have been lately reduced, so that it now contains about 45,000 square miles. Pop., in 1810, 1062; in 1820, 14,273; slaves, 1,617. It was erected into a territorial government in 1819. The number of counties, in 1820, was 7, and, in 1828, 15. Little Rock is the seat of government. According to a report made in congress, by one of the committees on public lands, the population of Arkansas, probably, will amount, in 1830, to 35,000.—The Arkansas flows through the central part; the Mississippi forms the eastern, and Red river a part of the southern boundary. The other principal rivers are White, St. Francis and Washita or Ouachitta rivers. The Ozark (a provincial corruption of *Arkansas*) mountains traverse the country from N. E. to S. W. The part of the territory between this range and the Mississippi is, in general, low and level, and, in many places, liable to annual inundation. To the N. W. of the mountains, the country consists mostly of extensive prairies, without trees, except on the borders of the streams of water. The soil, on the rivers, is exceedingly fertile; but, in other parts,

much of it is sterile. Throughout most of the country, there is a great scarcity of water. The climate is subject to great extremes of heat and cold, and is unhealthy to new settlers. Arkansas was discovered and settled by the French, under the chevalier de Tonti, as early as 1685. In the various transfers of territory, it followed the fate of other parts of Louisiana, until February, 1819, when, by a law of congress, that part of Louisiana between the state of Louisiana, or N. lat. 33°, and the southern boundary of Missouri, was erected into a separate territorial government, and such it continues to the present day.—Cotton and Indian corn are the staple productions. The country is exceedingly well adapted to the raising of cattle. Wild animals and fowls are abundant, as the buffalo, deer, elk, otter, beaver, rabbit, raccoon, wildcat, catamount, wolf, bear, &c.; wild geese, turkeys, quails, &c. Of minerals, there are iron, lead, coal, salt, &c. There are several salt springs, and, 1300 or 1400 miles up the Arkansas, is a tract called the *salt prairie*, which, according to governor Miller, is covered, for many miles, from 4 to 6 inches deep, with pure, white, crystallized salt. About 150 miles N. W. Arkansas are the famous hot springs. They are much resorted to by invalids, and are useful in chronic and paralytic affections. The temperature, in the driest seasons, is at the boiling point, but subject to considerable variation.—The principal tribes of Indians, in this territory, are the Osages, Cherokees, Quapas, Choctaws, Cadoes, Camanches, &c.—*Arkansas*; a river of North America, which rises in the Rocky mountains, about N. lat. 40°, near the sources of the rio del Norte, and near the borders of the territory of the U. States and Mexico. It forms a part of the boundary between the Missouri territory and Mexico, flows through the central part of Arkansas territory, and unites with the Mississippi, lat. 33° 40' N. Its course is E. S. E. It is navigable for boats, at some seasons, 1980 miles; its whole length, following its windings, is 2170 miles. Its channel is broad, and its navigation safe, unobstructed by rocks, shoals or rapids. Silver is found on this river, and much of the land on its banks is of the first quality.

ARKEBUSS. (See *Harquebuss*.)

ARKWRIGHT, sir Richard; at first a poor barber, afterwards inventor of the spinning jenny, and thereby the real founder of a branch of manufactures, to which Great Britain owes an immense increase

of her exports, and which affords employment to millions of hands. Some esteem this remarkable man as a genius of the first order, gifted with an extraordinary power of invention; others, as an artful contriver, who understood how to appropriate to himself the discoveries of others. It is certain that A. raised himself by his talents from low circumstances, that he had a great influence on the improvement of the spinning machines in England, and that he thus obtained honors and wealth. He left his barber's shop in 1767, and came to the village of Warrington, where he began his career of mechanical invention, with a kind of perpetual motion. A watch-maker, named *Kay*, advised him to persevere, and induced him to employ his talents on machinery for spinning wool. Kay had himself attempted to contrive a machine for that purpose, but without much success. As their united means were not sufficient to carry their design into execution, they applied for assistance to a Mr. Ather-ton, of Liverpool. Although the poverty of A.'s appearance promised but little, Mr. Atherton took the two projectors under his patronage, and a machine was at length completed. A. took out a patent for it in 1769, which was renewed in 1775, but was set aside, in 1785, by the king's bench. After procuring the patent, he formed, in connexion with a Mr. Smalley, an establishment which soon fell through. He then went to Nottingham, where his attempts were more successful. There he connected himself with a Scotchman, named *Dale*, and, as he was attacked, about this time, by other English manufacturers, he was accustomed to say, that he would put into the hands of a Scotchman a razor that would effectually shave them all. A. separated also from Dale, carried on his works alone, and soon became one of the richest manufacturers in the kingdom. When he died, in 1792, at his great establishment at Crumford bridge, his property amounted to at least £500,000. If the first conception of the spinning jenny cannot be refused to Kay, still we must not forget, that he who matures a crude idea, and understands how to apply it, deserves more credit than the inventor or projector. Since A.'s time, no important discovery or improvement has been made in the method of spinning cotton by water machinery. To give an idea of the immense influence which his invention has had upon the increase of cotton fabrics, it is sufficient to observe, that, from 1771 to 1780, only 5,735,000

pounds of raw cotton, on an average, were annually imported; but, from 1817 to 1821, about 144,000,000, of which 130,000,000 pounds were worked up in England, or, at least, spun there.

ARMADA (*Spanish*); a fleet of ships of war. This term is applied particularly to that great naval armament, which was called the *invincible armada*, fitted out, in 1588, by Philip II, against queen Elizabeth. It consisted of 150 ships, most of which were of a remarkable size, carrying 2650 guns, and having on board about 20,000 soldiers, and 8000 sailors, besides 2000 volunteers of the most distinguished families. This force was to be joined by 34,000 men, assembled in the neighborhood of Dunkirk. The English navy, at that time, consisted of 30 ships of war; but it was reinforced by the voluntary exertions of the citizens, commanded by Howard, Drake, Hawkins and Frobisher, and manned by the most skilful seamen in the world. The loss of their admiral, and a violent tempest, the day after they sailed, retarded, for some time, the operations of the Spaniards; and, on the voyage, they were harassed by the flying attacks of the English. They arrived on the coast of the Netherlands in July, were thrown into disorder by a stratagem of lord Howard, and, in this situation, were attacked with such impetuosity, that it became necessary to attempt to return. Contrary winds obliged the Spanish admiral to make the circuit of the island, with the wreck of this magnificent armament. In passing the Orkneys, it was attacked by a violent storm, and only a feeble remnant returned to Spain. Elizabeth struck medals with the motto—*Afflavit Deus et dissipantur*.

ARMADILLO (*dasypos*, L.); a genus of mammiferous quadrupeds, belonging to the order *edentata*, inhabiting the hotter regions of the American continent. The species comprised within this genus are provided with a very remarkable, hard shell, consisting of scales or plates, arranged somewhat like a tessellated pavement or coat of mail, covering the head, body, and, in some species, the tail. This shell forms a sort of shield on the head; a second, very convex, protects the shoulders, and a third is extended over the rump; while the space intermediate to the two last is occupied by a number of parallel plates, united by a strong, flexible membrane, which allows of the necessary flexions of the body. When the animal places the head between the fore-feet, and brings the tail and posterior ex-

tremities close together, a ball is formed, which offers an uniform, solid surface, not pervious to the attacks of birds of prey, nor small quadrupeds. The inferior surface of the body, not covered by the shell, is clothed with a coarse, scattered hair, some of which, also, appears at different points between the plates or bands of the shell. All the armadillos have a rather pointed snout, long ears and stout claws; of the latter, some species have four on the anterior feet, others five; all, however, have five on the posterior feet. They have no incisive or canine teeth, but seven or eight separate, cylindrical jaw-teeth, which are only enamelled on the outside. They feed on vegetables, insects and carrion, have a simple stomach, and no *cæcum*.—But for their peculiar fecundity, the armadillos would be speedily exterminated, as they are sought with great avidity in Guiana, Paraguay, Brazil, &c., on account of their flesh, which is regarded as a great luxury. To obtain these animals, is not so easy as might be supposed, since they burrow with astonishing rapidity, so that it is almost impossible to get at them by digging. The hunters are obliged to smoke them out of their dens. When they appear on the surface, they are easily captured, as they roll themselves into a ball, and remain motionless as soon as approached by a dog or man. If near a precipice, however, they sometimes elude pursuit by thus rolling themselves up and falling from the top, which they do without receiving any obvious injury. The Indians make use of the shell or covering of these animals, especially of the larger species, in the fabrication of baskets, &c.—Like all the animals belonging to this order, the armadillos are slow-motioned and harmless; sometimes they are troublesome in gardens, both from the destruction of plants, and the number and extent of the excavations which they form. The species are distinguished from each other, principally, by the number of bands on the trunk of the body, between the shield on the fore shoulders and that on the rump.—The species enumerated by Cuvier are—*Dasypus tridecemlineatus*, L. (3 banded A.), of middling size, found in Brazil and Paraguay; *D. 6 lineatus* et *18 lineatus*, L. (6 banded A.), having the borders of the posterior shield serrated, and the parts not covered by shell furnished with longer and thicker hair than the other species; *D. 7, 8 et 9 lineatus*, L. (9 banded A.), having a body 15 inches long, with a tail of the same length; and the *D. gigas*, C., or giant ar-

madillo, which has 12 or 13 intermediate bands, and grows to the length of 3 feet, exclusive of the tail. We have good reason to believe that this species attains to a much larger size, or that there is another species, to which the epithet *gigantic* is still more applicable than to this.

ARMAGH; a county of Ireland, in the province of Ulster, containing, on 459 square miles, 141,381 souls. The linen manufacture flourishes in this country. The chief city of this county is Armagh, which was formerly the metropolis of Ireland; lon. 6° 37' W.; lat. 54° 21' N. It contains 1268 houses, and 7010 inhabitants; 2000 of the established church, 3413 Catholics, and 1596 Dissenters. In the middle ages, it was an extensive and populous city, and celebrated for its learning, having, at one period, according to Irish historians, 7000 students at its college. It is, at present, the seat of the consistorial court of the archbishop of Armagh, who is lord primate of all Ireland.

ARMATOLIC (from the modern Greek 'Αρματολίον, i. e., territory of arms); a district in the mountains of Greece, assigned to a *capitani* for protection. They were the last refuge of liberty in Greece. These armatolics are very numerous in the mountains of Macedonia, Epirus and Thessaly; and the freedom of the Mainotes, Suliotes, inhabitants of Montenegro, &c., is supported almost entirely by them. When Mohammed II finished the conquest of Greece, he was satisfied with possessing the plains, the fortified places and the seaports. The natural fortresses of the country seemed unimportant to him, as well as to his successors, whose efforts were directed, in preference, against Hungary and Poland. To these fastnesses, unconquered by the Turks, fled the independent part of the Greeks, in order to continue the war in detail, under their bold leaders, called *capitanis*. A *capitani* collected, generally, a troop of 50—200 men, who remained true to him through every variety of fortune, and attacked the enemy every where, on the roads and in the towns. They said, "We never have made peace with Turkey." Thus involved in an endless struggle with the oppressors, their war soon degenerated into robberies. A large number of them were careful to confine their depredations to Mussulmans; but this was not the case with all, and many instances occurred, as may easily be imagined, in which Greeks were attacked when the booty expected was con-

siderable. The pachas, unable to subdue these enterprising warriors, generally treated with them. The capitani received, on condition of remaining quiet, money or stores, and the government of the district which was defended by their arms. Such a district was then called *armatolion*. Very recently, the capitani Odysseus, Perrhæos, Tzonko, Tasios, Pisko, &c., made themselves feared by Ali Pacha, (q. v.) as well as by the pachas sent against him, and most of them took part against the Porte in the struggle for the liberty of Greece.

ARMED SHIP; a name used, in England, to signify a vessel occasionally taken into the service of the government in time of war, and employed to guard some particular coast, or to attend on a fleet. She is therefore armed and equipped, in all respects, like a ship of war, and commanded by an officer of the navy, who has the rank of a master and commander. All ships of this sort are upon the establishment of the king's sloops, having a lieutenant, master, purser, surgeon, &c.

ARMENIA; an Asiatic country, containing 106,000 square miles, formerly divided into Armenia Major and Minor. The first, which is the modern Turcomania, and is still sometimes called *Armenia*, lies south of mount Caucasus, and comprehends the Turkish pachalics Erzerum, Kars and Van (which extend over 33,770 square miles, and have 950,000 inhabitants), and also the Persian province Iran, or Erivan. Armenia Minor, now called *Aladulia* or *Pegian*, belongs to the Turks, and is divided between the pachalics Merashe and Sivas. Armenia is a rough, mountainous country, which has Caucasus for its northern boundary, and, in the centre, is traversed by branches of the Taurus, to which belongs mount Ararat. (q. v.) Here the two great rivers Euphrates and Tigris take their rise; likewise the Kur, and other less considerable streams. The lakes Van and Geuk-sha are also in this part of the country. The climate is rather cold than warm; the soil, in general, moderately fertile, and better fitted for grazing than for agriculture; it produces, however, the finest southern fruits. The mountains are rich in iron and copper. The inhabitants consist of genuine Armenians, of Turcomans, who pass a wandering life in the plains, and of a few Turks, Greeks and Jews. Of the ancient history of this country but little is known. It appears to have been subjected, in turn, by the Assyrians, Medes, Persians and Macedonians. After the

death of Alexander, it became part of the kingdom of Syria, and so remained till the overthrow of Antiochus the Great, when it fell into the hands of different rulers, and was divided into Armenia Major and Minor.—Armenia Major was exposed to many attacks. The Romans and Parthians fought a long time for the right of giving a successor to the throne, and it was governed at one period by Parthian princes, at another, by those whom the Romans favored, until Trajan made it a Roman province. Armenia afterwards recovered its independence, and was under the rule of its own kings. Sapor, king of Persia, attempted its subjugation in vain, and it remained free until 650, when it was conquered by the Arabians. After this, it several times changed its masters, among whom were Gengis-Khan and Tamerlane. In 1552, Selim II conquered it from the Persians, and the greater part has since remained under the Turkish dominion. Armenia Minor has also had several rulers, among whom Mithridates was first distinguished. From him Pompey took the kingdom, and gave it to Dejotarus, &c. On the decline of the Roman empire in the East, it was conquered by the Persians, and, in 950, fell into the hands of the Arabians, since which time it has shared the same fate as Armenia Major, and was made, in 1514, a Turkish province, by Selim I. Of the cities of ancient Armenia, some ruins are yet to be seen, which display a good style in architecture; e. g., the ruins of the old capital Ani, which was destroyed, in 1319, by an earthquake; and those of the ancient city Armavir, which, during 1800 years, was the residence of the kings; some families still reside here. After Armavir, Artaxarta (Artaschad) on the Araxes, built in the time of the Seleucidæ, became the capital, but sunk into decay before the end of the 8th century.—The Armenians, a sober and temperate nation, are chiefly occupied in commerce, which, in Turkey, is almost entirely in their hands; and in all Asia, except China, merchants of their nation are to be found. Their religion has facilitated their entrance into Eastern Europe; accordingly they are numerous in Russia. Jaubert says of the domestic life of the Christian Armenians, that, in their native country, they are good agriculturists; that old age is highly honored; and that the wife looks up to her husband, and the son to his father, as in the time of the patriarchs. They prefer permanent habitations, wherever the eternal feuds of the pachas and

Curds permit them to remain quiet. The Armenians received Christianity as early as the 4th century. During the Monophysitic disputes, being dissatisfied with the decisions of the council of Chalcedon, they separated from the Greek church, in 536. The popes have at different times, when they requested protection against the Mohammedans, attempted to gain them over to the Catholic faith, but have not been able to unite them permanently and generally with the Roman church. Only in Italy, Poland, Galicia, Persia, under the archbishop of Nachitschevan (a new town on the Don, in the Russian government Ekaterinoslav, of which the inhabitants are mostly Armenians), and in Marseilles, there are United Armenians, who acknowledge the spiritual supremacy of the pope, agree in their doctrines with the Catholics, but retain their peculiar ceremonies and discipline. The case is the same with the United Armenian monasteries upon mount Lebanon in Syria. At the Persian invasion, in the beginning of the 17th century, many of them were obliged to become Mohammedans, but the far greater part are yet Monophysites, and have remained faithful to their old religion and worship. The Porte has constantly protected them against the attempts of the Catholics. Their doctrine differs from the orthodox chiefly in their admitting only one nature in Christ, and believing the Holy Spirit to issue from the Father alone. In their 7 sacraments, which they call *mysteries*, there are these peculiarities, that, in baptism, they sprinkle thrice, and dip thrice, and this is immediately followed by confirmation; that, in the Lord's supper, they mix no water with the wine, and use leavened bread, which they distribute dipped in wine; and that they allow extreme unction only to divines, immediately after their death. They adore saints and their images, but do not believe in purgatory. In fasting, they surpass the Greeks. Their feasts are fewer than those of the Greeks, but they celebrate them more devoutly. They worship, in Turkey, mostly in the night time; the mass is said in the ancient Armenian, the sermon is preached in the modern. Their hierarchy differs little from that of the Greeks. The *catholicos*, or head of the church, has his seat at Etschmiazim, a monastery near Erivan, the capital of the Persian Armenia, on mount Ararat. The holy oil, which he prepares and sells to the clergy, and the frequent pilgrimages of the Armenians to Etschmiazim, supply him

with means for the support of a magnificent style of worship, and of establishments for education. He maintains, in his residence, a seminary for the education of divines. The patriarchs, bishops and archbishops of the Armenians are invested by him, and every three years confirmed in their offices, or recalled. The remainder of the clergy resemble the priests of the orthodox church in rank and duties. The monks follow the rule of St. Basil. The *vertabelts*, who live like monks, cultivate the sciences, take degrees, which may be compared with our academical honors, and are the vicars of the bishops, form a class of divines peculiar to the Armenian church. The secular priests must be married once, but are not permitted to take a second wife. In superstition, and attachment to old forms, the Armenians resemble the Greeks, but are distinguished by better morals. In general, they surpass all the kindred Monophysitic sects in information; allow the people to read the Bible; study the theological, historical and mathematical sciences; possess a respectable national literature, and, at Etschmiazim, have a printing office, which produces splendid copies of the Bible. Besides the religious societies of the Armenians in their own country and in Turkey, where they are very numerous (their patriarch at Constantinople maintains the same relation as the Greek patriarch towards the Porte), there are others in Persia, at Ispahan, Schiras and Nerinkale; in Russia, at Petersburg, Moscow, Astrachan, and in the Caucasian governments; also, small ones at London and Amsterdam. (See Ker Porter's *Travels in Georgia, Persia, Armenia ancient, Babylon, etc.*, in the years 1817—20 (London, 1821, 4to. with copperplates), and the travels of a Frenchman (Amad. Jaubert) through Armenia and Persia, in 1805, 1806.)

ARMENIAN LITERATURE. The Armenians, one of the most ancient nations of the civilized world, have maintained themselves as a cultivated people, amidst all those revolutions which barbarism, despotism and war have occasioned, in Western Asia, from the days of Assyria, Greece and Rome, down to the period of Mongolian, Turkish and Persian dominion. During so many ages, they have faithfully preserved, not only their historical traditions, reaching back to the period of the ancient Hebrew histories, but also their national character, in a physical and moral point of view. Their first abode, mount Ararat, is, even at the

present day, the centre of their religious and political union. Commerce has scattered them, like the Israelites, among all the principal nations of Europe and Asia (with the exception of China); but this dispersion and the mercantile spirit have not debased their character; on the contrary, they are distinguished by superior cultivation, manners and honesty, from the barbarians, under whose yoke they live, and even from the Greeks and Jews. The cause is to be found in their creed, and in their religious union. The cultivation of the Armenians is a proof of the salutary influence of a well-ordered Christian church on the moral and intellectual development of a nation, which has preserved its history, and, with it, its national character. They owe this in particular to the Bible, which is freely distributed among the people by the clergy, in translations that are esteemed valuable in theological literature. This is done not only at Etchmiazim,—the principal monastery of the Armenians, the chief seat of their church, the abode of their patriarch (*catholicus*), and, at the same time, the seminary of their teachers, where many Bibles are printed, and whither every pious Armenian must perform a pilgrimage at least once during his life,—but also in the other dioceses of the Armenian patriarchs, archbishops and bishops at Sis (Ajaz), in Caramania, Constantinople, Jerusalem, and other places. Some time since, a society for the distribution of Armenian Bibles was formed in the Armenian church in Russia, the archbishop of which has his seat in an Armenian monastery at Astrachan. With the Biblical literature of the Armenians is connected their theological, historical and mathematical literature. It is as old as the conversion of the people to Christianity, and sheds much light on the ancient history of the people of the East. Hence it has recently found many assiduous students in Paris. According to their natural historians, the name *Armenia* is derived from Aram, the seventh king of the first dynasty, who, about the year 1800 B. C., gave a settled character to the kingdom. The Armenians call themselves *Hajz*, after Haico, the father and patriarch of the people, a contemporary of Belus. With him commences the Armenian history, about 2100 B. C., and closes with Leo VII, who fled from his country, when invaded by the barbarians, and died at Paris, in 1393. The kingdom shared the fate of Asia Minor and Persia.—To return to its an-

cient history: Valarsaces, the founder of an Armenian dynasty, organized the state anew, about 150 B. C. Besides many other institutions, he added to the senate two censors, who had no votes, but were allowed to put questions, and make observations on every measure, and even to reprove the king himself, in cases of precipitation or injustice. The same Valarsaces caused the traditions yet existing in the country, and in the Parthian empire, to be collected by Mar Ibas Catani, the only Armenian writer before Christ with whom we are acquainted. In the beginning of the 4th century, the Armenians became Christians. With this event their literature begins. Since that time, they have translated from the Greek (there is a Homer in Armenian hexameters), Hebrew, Syriac and Chaldean, into their own dialect, which Cirbied asserts to be an original language: according to others, it is a mixed dialect, composed of the Syriac, Chaldean, Hebrew and Arabian. Both opinions are correct. The old Armenian, the language of literature and of the church, is, as Vater agrees, an original language; the modern Armenian has been formed, as a popular language, by foreign additions, during the successive changes of their conquerors, and consists of four principal dialects. The written language owes its cultivation to the translation of the Bible, begun in 411, by Mesrob, with his disciples,—among whom was Moses Choronensis,—by the desire of the patriarch Isaac the Great, and finished in 511. Schreter's dictionary (*Thes. Ling. Armenicæ*), Amsterdam, 1711, 4to., is still valuable. Mesrob first added 7 vowel signs to the old Armenian alphabet, which before only contained 27 consonants. At the same time, schools were established. The most flourishing period of Armenian literature was in the 6th century, at the time of the separation of the Armenians from the Greek church, after the council of Chalcedon. It continued to flourish till the 10th century, revived in the 13th, and maintained a respectable character till 1453. In scientific inquiries, it never arose to any considerable eminence. It is particularly valuable in what relates to history. The royal library at Paris possesses the Armenian historical authors nearly complete, partly printed, partly in manuscript. From them, J. M. Chahar de Cirbied, a learned Armenian employed in this library, published, in 1806, his *Recherches curieuses sur l'Histoire ancienne de l'Asie*, and compiled, with M. J. Saint-Martin,

a universal history of Armenia. The best introduction to Armenian history, geography and literature, is that which M. J. Saint-Martin, member of the French institute, has extracted from old Armenian writings, inscriptions and other sources—*Mémoires historiques et géographiques sur l'Arménie*, Paris, 1818, 2 vols. This work contains the Armenian text of the history of the reigning Orpelian family, by a prince of this family,—the archbishop Stephen Orpelian,—and the text of the Armenian geographers Moses of Chorene, and Vartan, with additions, translated into the French, with annotations. Among the living Armenian scholars, we may mention Dr. Zorab, in Venice, and the librarian of the Armenian congregation of St. Lazarus, in Venice, John Bapt. Aucher, who has lately published Armenian translations of the 5th century, from ancient authors, e. g., the famous Grecian Jew, Philo. At an Armenian monastery, on an island in the Lagoons, near Venice, a newspaper is published in the Armenian language, which circulates in the Levant and in Constantinople.

ARMFELT (Gustavus Maurice), count of; a distinguished Swede, whose public life was marked by singular changes of fortune, but belongs, in a considerable degree, to the secret history of the Swedish court, and has, therefore, not been fully explained. Gustavus Maurice, born April 1st, 1757, the oldest son of the major-general baron Armfelt, was educated in the military school at Carlscrona, and was afterwards appointed ensign in the guard at Stockholm. By his fine figure, and the charms of his conversation, he gained the favor of Gustavus III. He was rapidly promoted, and loaded with marks of distinction. In the war against Russia, 1788—1790, he showed a courage in the field as splendid as his talents in social life, on which account he continued to rise in the favor of his king. As lieutenant-general, he concluded the peace of Werela, was honored by the Russian empress with several orders, and received, even at the death-bed of his sovereign, the most flattering marks of royal favor. He was appointed governor of Stockholm, and connected, by means of Gustavus III, in marriage with the ancient family of the count de la Gardie. He was said, also, to have been intended for president of the council of regency, during the minority of Gustavus IV, though the guardianship of the young king had been assigned to the duke of Sudermanland by a previous will. Possibly, this is the source of the

hatred with which A. was now persecuted. He was deprived, Sept. 7, 1792, of all his offices and dignities, and sent as ambassador to Naples. It was supposed, not without foundation, that an unrequited passion of the duke of Sudermanland for a court lady, von Rudenskjold, by whom A. was favored, had exasperated his rivalry to hate. It is certain, that Armfelt and Rudenskjold were made the subject of scandalous rumors; she was dishonorably reprimanded in the house of correction; and he, then in Italy, escaped the daggers of hired assassins, and a formal requisition of the Swedish government, only by flight; was declared a traitor and an outlaw, and all his fortune and honors, nay, even his nobility, were pronounced forfeit. He afterwards resided in Germany, till 1799, when Gustavus IV annulled this decree, and restored A. to his former situation. He was appointed ambassador to the court of Vienna, and, in 1807, the rank of general of infantry was conferred on him. As such, he commanded the Swedish troops in Pomerania, and, in 1808, the western army against Norway. In the autumn of this year, he was appointed president of the military institution at Stockholm, and made peer of the kingdom. In 1810, he obtained his desired discharge, and lived as a private man at Stockholm. A connexion with the infamous countess Piper involved him in new difficulties, and induced him to seek shelter with the Russian ambassador, and to go over to the Russian service. Here he was favorably received, was made count, chancellor of the university of Abo, president of the department for the affairs of Finland, and member of the Russian senate. He now enjoyed general esteem till his death, Aug. 19, 1814, at Czarskoeselö. He was particularly respected by the Finlanders.

ARMIGER, or ESQUIRE; in England, a title belonging to such gentlemen as bear arms; and these are either by courtesy, as sons of noblemen, eldest sons of knights, or by creation, as the king's servants.

ARMINIANS; a religious sect, which has its name from its founder, Arminius. (q. v.) In Germany and Holland, they are more generally called *Remonstrants*, on account of the title *Remonstrantia*, which they gave to a document presented to the states-general of Holland, in which they endeavored to prove the opinions of the reformed church, in respect to predestination, erroneous. Diversity of opinion on this subject was the chief reason

of their separation from the reformed church. They maintained, 1, that God had, indeed, resolved from eternity on the salvation and damnation of men, but with the condition, that all those who believed should be saved, while the unbelievers should be damned; 2, that Christ died for all men, but nobody could partake in his salvation, except he believe; 3, that nobody can have saving faith from himself, but must be born again of God, in Christ, through the Holy Ghost, in order to attain it; 4, that nobody can, without the grace of God, think, will, nor do any thing good, because all our good works have their origin in God's grace; 5, that the faithful can struggle against Satan, the flesh and the world, and conquer them, by the assistance of the Holy Ghost. This is the genuine doctrine of Arminius and his sect. From these original Remonstrants, however, are to be distinguished those who were not satisfied with these 5 articles, but proceeded farther in the contest with the reformed or Calvinistic church. As, even before the Arminian dispute, several writings of Socinus had been circulated secretly in Holland, particularly among the men of learning, who were almost all Arminians, it was natural that the later Arminians should coincide, in many points, with the Socinians. They were therefore accused of Socinianism. The states of Holland issued an ordinance, in 1614, directing the Remonstrants and Counter-remonstrants (the latter were also called *Gomarists*, from their leader, Francis Gomarus, professor of theology at Leyden) to live in love and charity with each other. But, as both parties doubted the obligation of such a decree in respect to spiritual affairs, the famous synod at Dort was held from Nov. 13, 1618, to May 9, 1619, in order to adjust the differences. The decision of the synod is very remarkable. It made reason the servant of the fear of God, subjecting it to the control of faith, and declared, with much piety and theological consistency, that the doctrine of predestination is very hard, but cannot be avoided; let the Holy Scriptures stand fast, and the opinion of the opposing world perish. The Counter-remonstrants, so called, gained the ascendancy by the decree of this synod, in which they were accusers and judges. The opposite party have accused them of unjust and cruel behavior on this occasion, and they have not yet been able to disprove the accusation. Though the former were obliged to yield to the decision of the synod, they

continued to print and defend their doctrines. The decree of this synod was highly prejudicial to the sect of the Arminians, and they were particularly in danger when some of their members took part in a conspiracy against prince Maurice. He was, however, soon convinced, that the sect, as such, had nothing to do with the plot, and, after his death, in 1625, they received from Henry, his brother, the liberty to erect churches and schools in all parts of Holland. In Amsterdam, they established an academy for education, which became very famous. The congregations at Rotterdam and Amsterdam were the most numerous. They did not endeavor to increase their sect. Any one who joined them was not obliged to accept their creed, but only to declare, generally, that he was a believer in Christianity according to the apostolic *symbolum*, and endeavored to regulate his life according to Christ's commands. Their public service was almost entirely like that of the Calvinistic church, only they did not require, like this church, from the parents of a child about to be baptized, a profession of belief in their doctrines, and a promise to educate the child in the same, but demanded only a promise to educate the child in the Christian faith, without mentioning the creed of any sect. The Arminians were very numerous as long as they were persecuted, but rather decreased, when they had gained liberty and peace.

ARMINIUS (the Latin name for *Hermann*); the deliverer of Germany from the Roman yoke. The victories of Drusus had added to the Roman empire the German districts lying on the Rhine, the Elbe and the Saal. No measures were neglected, by the Roman government, to keep the natives of these territories in subjection. The Sicambri, whose fearless spirit was so fatal to Lollius, were transplanted, with a few of the most powerful tribes, to the banks of the Rhine, and the interior of Gaul; and attempts were made to secure the allegiance of the remaining tribes by hostages, and by a Roman education, gratuitously bestowed on the children of the chiefs. A., son of a prince of the Cherusci, Sigimer (which, in the old German, signifies a *famous conqueror*), was born 18 B. C. He was educated at Rome, admitted into the rank of *equites*, and appointed to an honorable station in the army of Augustus. But princely favor and the charms of learning were insufficient to make the young barbarian forget his early associations, and his

country's gods; and the effect of his Roman education was to teach him how to conquer his instructors. Convinced that the rude strength of his savage countrymen would be unequal to cope with the disciplined forces of the Romans in the open field, he had recourse to stratagem. Every circumstance seemed to favor his designs. Quintilius Varus, who commanded the flower of the Roman army, was appointed to maintain tranquillity and submission in the new territories on the right bank of the Rhine. Relying upon his power, he expected to be able to introduce Roman institutions, and thereby change the character of the German tribes, who viewed liberty as the highest good. He was accompanied to his destination by a large number of merchants and lawyers, who were to bring about the intended changes. The object of this expedition was sufficiently odious in itself, and the arrogance and oppression of the Romans increased the dissatisfaction of the Germans to the highest degree. A. chose this favorable moment for the execution of his designs, and succeeded in gaining over to his views the chiefs of nearly all the tribes between the Elbe and the Rhine. About the same time, A. D. 9, a general rebellion broke out in Pannonia and on the borders of Dalmatia. Whether this rebellion was connected with the plans of A., and intended to aid in supporting the monarchy which had been founded by Marbodius, between the Elbe, the Saal and the Oder, and suppressed by the Roman governor, we shall not now stop to decide. Even if it had no connexion with the designs of A., we have reason to admire the harmony which marked the undertakings of the allies; for the treachery of Segestes, one of their number, was insufficient to break the strong bond of their union. This Segestes, prince of the Catti, informed the Roman general of their secret intentions; but Varus disregarded his admonitions. A. succeeded in removing his distrust, and turned the attention of the Romans to the disturbances on the Weser, which he had himself excited, in order to draw the Roman soldiers into the heart of the country. The auxiliary German troops every where yielded the strictest obedience, and their commander, the faithful confederate of A., was every day lulling Varus into a deeper security. Slight disturbances, which had been previously concerted, now took place in distant parts of the empire, to induce the Roman governor to divide his strength.

The main body of the army consisted of 3 legions, a few cohorts and the treacherous auxiliaries. The spirit of rebellion now became universal. A. and his most intimate friends, who had enjoyed the confidence of Varus, and been admitted to his secret councils, multiplied the proofs of their apparent zeal in the Roman service. They urged the Roman commander not to wait for the undisciplined rebels, but to march against them, and extinguish the flames of sedition where they raged with the greatest fury. It was in vain that Segestes repeated his warnings. The arts of A. prevailed. The army advanced every day farther from the Rhine, and plunged deeper in the regions where they were most exposed to destruction. In the territory of the Bructeri, near the source of the Lippe, after a long and tiresome march through marshes and forests, they suddenly found themselves in a deep valley, surrounded by hills, which were all occupied by their German foes; and, to add to their consternation, A., with his rear-guard, was now their enemy, and the soul of all the assaults which were made upon them. Varus now saw destruction impending over him. The courage and discipline of the Roman soldiers had long excited admiration, but could now only defer for a time their fate. For 3 days their sufferings continued. A. made himself master of 3 Roman eagles, and put a stop forever to their advance in the north of Germany. Varus could not survive his disgrace; he killed himself, as so many other Romans had done, when the fortune of war was adverse. The victory of A. was stained by useless acts of violence and cruelty. The Germans cut off the hands of the lawyers, whose subtleties were most odious to the national feeling, and put out the eyes of others. We must not forget, however, the strong provocation which they had received from their cruel and oppressive conquerors. It is difficult to determine the place of this celebrated engagement. The ancients called it *Teutoburgiensis Saltus*. The opinion of Mannert is very different from that of Tacitus. The former fixes the field of battle on the borders of the principalities of Lippe and Mark, and the duchy of Westphalia; but the account of Tacitus agrees more nearly with the tradition, which says the action was fought at the source of the Ems and the Lippe, near what is now the little city of Detmold. All the neighborhood is full of memorials of that day.—After A. had

secured the liberty of his country, he destroyed the fortifications of the Romans on the Elbe, the Weser and the Rhine. He labored to elevate the martial spirit of his countrymen, which he regarded as the best defence against the arms of Rome. But he was soon involved in a difficulty with his own countrymen, particularly with Segestes, the head of a powerful tribe, whose daughter, betrothed to another prince, had been carried off by A. Segestes was first attacked by the national party, of which A. was the head, and immediately applied for aid to Germanicus. The Romans hastened to assist him, and delivered him from a siege. Among the prisoners was the wife of A. When she was presented before Germanicus, her whole behavior showed her worthy of her valiant husband. Her grief, Tacitus says, was silent. She shed not a tear; she offered not a prayer; her hands were folded; her eyes fixed on her breast. The treachery of Segestes and the fate of Thusnelda gave new ardor to the patriotic feelings of A. Inguiomar, his uncle, a warrior of great celebrity, offered him his aid. Germanicus felt the necessity of anticipating the blow, and undertook a campaign, which, in spite of the successes of the Romans, served only to draw closer the bonds of union among the German confederates, and to increase their confidence in their own strength. The next year was marked by new exertions on the part of the Roman general. His preparations were immense, and his whole plan faultless in design and execution. This fourth campaign of Drusus in Germany was distinguished by the defeat of A. on the plains of Idistavisus, on the banks of the Weser; but it ended in the retreat of the Romans. At the commencement of the campaign, and previous to the battle of Idistavisus, A. desired an interview with his brother, Flavius, who had been educated with him in Italy, and still adhered to the Romans. They conversed in Latin, from the opposite banks of the Weser. It was in vain that A. sought to gain over his brother to the cause of their common country. It was in vain that he stigmatized his military badges as the reward of baseness, and the pledges of a shameful bondage. Nothing but the river, which flowed between, prevented them from actual violence. Flavius was at length conveyed away from the place by his friends. The jealousy of Tiberius against Germanicus favored the exertions of the allies. But, when they had repelled the attacks

of their foreign foes, they turned their arms against one another. Marbodius, the king of the Suevi, and founder of the kingdom of the Marcomanni, was prompted by ambition to carry his conquests beyond the Saal and the Elbe. He, too, had received his education in Rome, but had returned with principles decidedly opposed to those of the hero of the Cherusci. In A. the Romans had found a bold defender of his country's freedom, and in Marbodius an enemy of his ambitious views. Notwithstanding the revolt of Inguiomar, who went over to the party of Marbodius, rather than serve under his nephew, A. came off victorious in the civil war. He obtained the honor of having freed his country from a foreign yoke, and of preserving his fellow-citizens from domestic tyranny. A long and bloody battle decided the claims of the contending parties. The Germans no longer fought in disorder; for A. had accustomed them to the rigid discipline of the Romans, and all the rules of war had become familiar to the barbarians. The event was long doubtful. But the king of the Marcomanni first withdrew his troops from the field, and was thus looked upon as vanquished. A large proportion of his army abandoned him, and he was forced to retreat in haste to Bohemia, in the interior of his dominions, and, at last, to Italy, where he lived in obscurity. Tacitus relates, that A. drew upon himself the hatred of his countrymen by aiming at the regal authority; and, in the 37th year of his age, he was assassinated by one of his own relations. A short time before his death, Adgantestes, or Adgantestrius, prince of the Celts, proposed to the Roman senate to despatch him by poison; but the senate took no notice of the offer. A. was 26 years old when he destroyed the legions of Varus; and 2 years before his death, he gained his victory over Marbodius. In the language of Tacitus, "A. was doubtless the deliverer of Germany. He fought against the Romans, not like other kings and generals, when they were weak, but when their empire was mighty and their renown glorious. Fortune, indeed, sometimes deserted him; but, even when conquered, his noble character and his extensive influence commanded the veneration of his conquerors. For 12 years, he presided over the destiny of Germany, to the complete satisfaction of his countrymen; and, after his death, they paid him divine honors." If we dwell a moment on the results of his victory, we find that it had

a decided influence on the whole character of Germany, political and literary; because it is evident, that, had the Romans remained in quiet possession of the country, they would have given a tone to all its institutions and its language, as was the case with all the other countries of Europe conquered by them. The reason, therefore, why the language of the Germans remained unmixed and uninfluenced by Latin, and why their political institutions retained so much of their ancient character, is to be found in the victory of A. To the same cause must be ascribed, however, their tardy development in several respects. It is not to be doubted, that other nations have derived great benefit from the introduction among them of the Roman civilization, as far as respects the order, tranquillity and refinement of social life; but all advantages could not be had at once; and had not A. crushed the Roman power in Germany, an idiom similar to the French and Spanish would be spoken there, where now a language and literature exist of a peculiar and original character. Some influence, however, the Romans did undoubtedly exercise on the dialect of Germany, and many Latin words were introduced into it, yet with such alteration, that they can with difficulty be recognised.

ARMINIUS, or HERMANN, JAMES, founder of the sect of Arminians or Remonstrants, was born at Oudewater, in Holland, 1560. He studied at Utrecht and in the university of Leyden. Here he obtained so much reputation, that the magistrates of Amsterdam sent him, at the public expense, to finish his studies at Geneva, where his chief preceptor in theology was Theodore Beza. Adopting, in philosophy, the new doctrines of Peter Ramus, he privately taught them; which innovation gave so much offence, that he was obliged to quit Geneva. Anxious to attend the celebrated lectures at Padua, he next visited Italy. Distinguished by his zeal for the reformed religion, and talents as a preacher, he was chosen to undertake the refutation of a work written against Beza's doctrine of predestination; but he happened to be converted by the work which he had undertaken to refute. He honestly avowed his change of opinion, and, renouncing the Calvinistic doctrine concerning the decrees of God and divine grace, maintained that the merits of Christ extended to all mankind, and that the grace necessary to salvation is attainable by every one. Elect-

ed professor of divinity at Leyden, he openly declared his opinions, which rapidly spread both among the clergy and laity. The adherents to the Calvinistic system, however, caused him much vexation. He was several times summoned to the Hague, to give an account of his doctrines; and his colleague, Gomarus, was among the most violent of his enemies. These contests, with the continual attacks on his reputation, at length impaired his health, and brought on a complicated disease, of which he died in 1609. A. was candid, amiable, sincere, and possessed of great integrity. He was a friend to universal toleration, maintaining that Christians are accountable to God alone for their religious sentiments. His followers included some of the first men in Holland, as Barneveldt, Hoogerbeets and Grotius. The Arminians still remain a distinct sect in Holland, and, from the time of Laud, have been the predominant party in the church of England. Editions of the whole of the writings of this divine were published in one volume, 4to., Leyden, 1629; Frankfort, 1631—1634; and often afterwards. The principal piece in this collection is entitled *Dissertationes de Diversis Christiana Religionis Capitibus*. (See *Arminians*.)

ARMOR, COAT OF, in England, signifies the escutcheon of any person or family, with its several charges, and other furniture; as, mantling, crest, supporters, motto, &c. Thus the phrase a gentleman of coat-armor means one who bears arms.

ARMORICA; the ancient name of the whole northern and western coast of Gaul, from the Pyrenees to the Rhine; under which name it was known even in Cæsar's time. The word is said to be of Bas-Breton origin, and to signify *maritime*.

ARMS. Man has not, like many animals, received from nature any member intended particularly as a weapon. He is obliged to use artificial means to increase his strength, when he attacks, as well as to screen his body, which nature has left unprotected. Arms were, therefore, an early invention; perhaps, in the first instance, as a means of defence against animals. They were soon used, however, for the purpose of conflict between man and man.—The first and most natural of all arms are the club and the sling. Every one naturally uses missiles as means of offence, and the sling adds force to the cast. In the history of the arms of all nations, we find, invariably, that man, beginning with the means of

injury in the close struggle, endeavors continually to invent weapons which shall take effect from greater and greater distances. In consequence of the progress made in this way, dexterity always takes, at last, the place of courage. Nature has given to man only one weapon, in a limited sense of the word,—the arm, used in boxing,—and this can be made truly a weapon only by the dexterity acquired by long training. The art of boxing, moreover, is of use only against men. Within its sphere, indeed, it is very effectual. As soon as men learned the use of the metals, they worked them into pikes, spears, lances, and soon afterwards into swords and armor. Of this last, part only was at first made of metal, but the proportion went on increasing, till at last a complete suit of iron came into use. The first improvement on the sling and the bow was the cross-bow. Still later came the large engines employed by the ancients, and called *catapultæ*, *balistæ*, &c. These would produce effect at the distance of 1000 feet. But the discovery of gunpowder changed the character of arms. Objects 6000 paces distant could now be reached, and obstacles overthrown with ease, which formerly cost the labor of years. By the invention of steam-guns, still more may be accomplished in future. The inventor, Mr. Perkins, an American of great mechanical talent, has not, however, yet been able so far to perfect the machine, as to qualify it to take the place of fire-arms.—Arms may be divided into offensive and defensive; the *first* kind, again, into, 1, arms for cutting, e. g., the sabre; 2, for thrusting, e. g., the straight sword, the small sword, the bayonet, pike, lance, &c.; 3, arms for throwing, e. g., the mortar, howitzer, &c.; 4, arms for shooting, e. g., pistols, carabines, rifles, guns, cannons. It must be observed, that arms for thrusting are much more injurious, and therefore better, than those for cutting; but they require infinitely more skill, and cannot, therefore, be used so much in armies as they otherwise would be. Man is protected by nature much more against a downward blow, by the strong bones of the skull and the shoulders, than against a thrust, to which the more vulnerable parts of the belly and the breast are exposed. So great is the difference in this respect, that a downward blow with the fist hardly ever injures seriously, while the thrust of a boxer is highly dangerous.—II. Defensive arms include all those which are properly so called, cuirasses,

helmets, &c., and also the parts of fortifications which are intended particularly to protect the body. The most important arms are treated of under the proper heads.—Some writers make a distinction between armed men (infantry and cavalry), and manned arms (artillery). The history of war includes also that of arms. French and German military writers apply the word *arms* to the different species of troops, and speak of the three arms, i. e. cavalry, infantry and artillery. Some writers use *bayonet* for *infantry*, as *horse* is used for *cavalry*, and say, The army consisted of 12,000 *bayonets* and 2000 *horse*.—To readers desirous of becoming acquainted with the armor of the ancients, and that used in the middle ages, we recommend the splendid work, *Critical Inquiry into Ancient Armor, &c., with a Glossary for the Names of the Arms of the Middle Ages*, by Sam. Rush Meyrick, 3 vols. large 4to., London, 1824; a work interesting to the student of the politics, arts, manners and wars of the ancients and the middle ages. There are, in Europe, many collections of arms used in both these periods (e. g., one of the arms of the ancients, at Naples), which, with the collections of the arms of the Indians, strikingly manifest the progress of civilization.

ARMS, COAT OF. (See *Heraldry*.)

ARMSTRONG, John, born, in 1709, at Castleton, was educated at the university of Edinburgh, and took his medical degree, in 1732, with much reputation. His early attempts in verse contain nothing remarkable. His practice in his profession was never extensive; this he attributed to his neglect of little artifices; others to his indolence and devotion to literature. Soon after his arrival in London, he published the *Economy of Love*, a disgraceful production, which he endeavored, at a later period, to correct. His *Art of preserving Health* appeared in 1744, and established his poetical reputation. In 1746, he was appointed physician to an hospital for soldiers, and, in the course of a few years, published his poem on *Benevolence*, *Epistle on Taste*, and his prose *Sketches* by Lancelot Temple, none of which added to his reputation. In 1760, he was appointed physician to the forces which went to Germany. This appointment was obtained for him by Wilkes, with whom he was then on friendly terms; but their friendship did not stand the tug of political warfare.—After his return to London, he published a collection of his *Miscellanies*, containing the *Universal Almanac*, a new prose

piece, and the *Forced Marriage*, a tragedy, which had been refused by Garrick. This collection contains nothing valuable. He afterwards visited France and Italy, and published an account of his tour, under the name of *Lancelot Temple*. His last production was a volume of *Professional Essays*. He died in 1779, of an accidental hurt.—The conversation of A. is said to have been rich and entertaining, though he is painted, in the *Castle of Indolence* (to which he contributed the stanzas describing the diseases produced by sloth), as

One shyer still, who quite detested talk.

The *Art of Preserving Health* is a successful attempt to incorporate science with poetry. By giving it a moral as well as a medical interest, A. raised the dignity of the poem. It is distinguished by judicious thoughts, correct expression and lucid management, rather than by originality of genius, harmony of versification, or poetic ardor of thought.

ARMY. In the history of armies we must distinguish those of 3 different periods ;—1, the ancient armies, which arrived at their perfection under the Romans ; 2, those of the middle ages, the offspring of the feudal system, ill-organized bodies, created only for a short time, and undoubtedly the worst which history makes known to us ; 3, such as have existed since the invention of gunpowder and the establishment of standing armies. (*See the succeeding article.*) By the invention of gunpowder, the whole character of armies has been changed, from the organization and equipment of the whole mass to the very *point d'honneur* of the individual. As long as personal courage, strength and dexterity decided the fate of a battle, war had great charms for noble-minded characters. At this period, too, science had not become incorporated with the very life-blood of society ; and the want of intellectual occupation contributed its share in making war the favorite occupation of the higher classes. They fought on horseback, every one at his own expense. None but the poorer class, the vassals, fought on foot. Under such circumstances, the art of war could never attain a high degree of perfection, nor could the organization of an army be very complete. It was not till the wars between Charles V and Francis I of France, that the great importance of regular infantry was seen, and the Swiss, then the best foot-soldiers in Europe, often determined the fate of the battle.

By the introduction of fire-arms, particularly of artillery, courage and bodily strength lost their exclusive importance, and the advantages of regular tactics began to be felt, by which generals were enabled to direct the movements of armies with greater exactness. Now that war was reduced to a system, it lost much of its charms in the eyes of an idle and ambitious nobility. The estimation of infantry continually increased ; volunteers became more rare. It became necessary to take mercenaries from the lowest classes of the people, and, at the same time, the regular tactics introduced required a more thorough training ; the individual was lost more and more in the mass, and standing armies were at length established, and rose continually in estimation. Much was done to improve the new system by Henry IV of France, as well as by the republic of the Netherlands, in their struggle for liberty against Spain. The number of troops organized in this way still remained, however, very small, compared with the others. Henry IV, prince Maurice of Nassau, and Alexander, duke of Parma, did much for the improvement of tactics, and of the art of besieging, which made great progress in the war above-mentioned, and contributed, in no small degree, to advance the character of armies. Still more important, in these respects, was the thirty years' war. Armies, as yet, consisted, for the most part, of soldiers raised by the general, to serve only during a particular war, e. g. Wallenstein's troops ; but the time of service having much increased, particularly in the wars of Gustavus Adolphus of Sweden, the character of armies and tactics was much elevated. This king established smaller divisions, introduced lighter weapons, and made many improvements in the artillery, by which quicker and more complicated movements became practicable. Repeated victories proved the advantages of the new system, which even Wallenstein acknowledged. Soon after, under Louis XIV, the whole system of war received another form by means of the minister of war le Tellier, and his son and successor Louvois, the art of tactics being particularly improved by Turenne and other contemporary great generals. Standing armies attained an extent hitherto unexampled. Instead of the 14,000 men maintained by Henry IV, Louis XIV, after the peace of Nimeguen, had on foot an army of 140,000 men. France had set the example, and all the other powers of Europe followed, with

the exception of England and Holland, which, for a long time, opposed a similar augmentation, regarding standing armies as dangerous to freedom. These great masses must necessarily have exerted an important influence upon the art of war. This art was practised upon a continually increasing scale. France was, at the same time, endeavoring, in every way, to secure her boundaries by the erection of new fortifications, and her military engineers were particularly eminent. In the beginning of the 18th century, a new and important epoch commenced in the military system. Not only did Russia, in the time of Peter the Great, maintain a large standing army, well disciplined in the European manner, which afterwards, under the empress Anna, in its internal regulation, also, was made to resemble the armies of the other European states; but Prussia, too, came forward, under Frederic William I, as a respectable military power, and supported an army far exceeding a proper proportion to her population; hence she was induced to set the example of foreign levies, in which originated the inconvenience, that, in the hour of danger, a large part of the army could not be depended on, and, moreover, it was difficult to maintain discipline over this same portion, consisting of the refuse of foreign nations. The native soldiers, too, were corrupted by the contact, and it was found necessary to reduce the army to a machine, in order to make such materials serviceable. This idea was put in execution by Frederic II. The system of standing troops was carried to an extent such as it had never reached, and Prussian tactics became a pattern for all the other states of Europe. The system, however, had fatal imperfections, which would necessarily produce very injurious consequences. The great number of foreign vagabonds enlisted, led to the introduction of a degrading discipline, which made the condition of the soldiers completely miserable. Every prospect of advancement and all ambition were destroyed by the exclusive promotion of officers taken from the ranks of the nobility; and even their promotion was determined by length of service (a natural consequence of the long peace, which had existed since the seven years' war). This system seemed, indeed, to have been carried to its height, when the French revolution broke out with a violence which shook Europe to its foundation. Standing armies had now become bodies having little connexion with the nations by which

they were maintained. They only were armed; the nation had become altogether defenceless. When the army was beaten, the nation was subdued. At the same time, the armies had been so much increased beyond all proportion to the wealth of the states, that they must necessarily remain, in a great measure, useless. They had become mere machines, without any moral incentive. What was the necessary consequence, when, as now happened in France, a people excited to fury commenced a struggle with these antiquated and rusty engines? A new mode of carrying on war, produced by the pressure of circumstances, and by the rapid, bold and energetic efforts of young military geniuses, overturned multitudes of common forms, and carried victory in its train, until the opposing powers had learned to make it their model, and thereby restored the equilibrium. When the French ruler ultimately began to use his army more and more as a machine for the promotion of his ambitious designs, then the other European powers, taught by experience, called the nations themselves to arms, in behalf of freedom; and it was demonstrated anew, that no excellence of discipline, no mechanical perfection of an army, can enable it to withstand, for any length of time, moral energy and excitement, though connected with far inferior discipline.—The armies on the continent of Europe are raised, at present, from among the citizens, who are bound to serve for some time, and are then assigned to the class reserved for any sudden emergency. The time of service is various; in France, for instance, 6 years; in Prussia, 3, that is, in time of peace. In England and North America, no citizen is obliged to serve in the standing army, but only in the militia, which is destined merely for the defence of the country. (See *Militia and Soldier*.) The essay of the French colonel Carrion Nisas, *Essai sur l'Histoire générale de l'Art Militaire*, &c. (Paris, 1824, 2 vols.), mostly according to the views of Guibert, in his *Essai de la Tactique*, is neither comprehensive nor complete.—The organization of armies is nearly alike throughout the continent of Europe; and France, Prussia, Austria and Russia have paid much attention to the perfection of all classes of troops. The military schools of these countries, for the officers of different rank, as well as for the various kinds of troops, particularly those of France and Prussia, are excellent. Among the Prussian troops, learn-

ing is so universally cultivated, that the army is considered as a great institution for the diffusion of knowledge, because every Prussian serves 3 years without being able to send a substitute, and in each regiment schools for the privates are kept. In respect to these military schools, as well as to internal organization, the armies of the European continent very much surpass the English, in which the practice of selling commissions, the expense of the half-pay system, the non-promotion of privates, the still continued use of tents, the degrading flogging, &c., remind one of a continental army such as it was 50 years ago. In the army of the U. States, commissions are not sold, and the half-pay system has not been adopted. Napoleon increased the size of armies to a degree before unexampled. They are distinguished, according to the purposes for which they are destined, by the names of *blockading armies*, *armies of observation*, of *reserve*, &c.

ARMY, STANDING. In modern times, we designate by the name of *standing armies* bodies of troops which, in time of peace, are kept under arms for the defence of the state, within and without, trained to war, and paid by the government (whence the name *soldiers*, from *soldati*, from the Italian *soldo*, the French *sous*, for *pay*). These troops may be composed of persons obliged to bear arms, or not, of natives, or of foreigners. In this sense of the word, we find standing armies first in the monarchies of modern times, when the general introduction of fire-arms had changed the whole art of war, rendering personal courage of less consequence, and supplying its place with dexterity and mechanical skill, which can only be acquired by practice. The first standing armies consisted of mercenaries, assisted, indeed, at first, by the feudal militia, who, however, gradually disappeared, as military service and discipline assumed a more systematic character by means of the standing troops. The expense of mercenaries, which increased with the number of troops, and the security of the state, which could not be committed solely to hired troops, now required that a great proportion of the citizens capable of bearing arms (to be determined by the population, size, geographical and political situation and civilization of the state) should be continually under arms, and supported by the state, in connexion with the professional soldiers. These were, in a peculiar sense, called *standing troops*.—The introduction of standing armies has been

generally referred to the reign of Charles VII, king of France (1423—1461), who, by means of them, overawed his rebellious vassals, and increased not a little the power of the crown. King Philip Augustus, in consequence of the absence of great numbers of his vassals, in the crusades, had introduced, as early as 1215, the *troupes des communes* (*communia*; *communitates parochiarum*), composed of the inhabitants of the cities and villages, of which no city furnished more than 400 or 500. These served with the feudal militia, at the expense of the cities to which they belonged, and only at a certain distance from them. The power of the cities was thus increased, and the citizens formed, in war, a separate order, independent of the nobles. It was, in a great measure, owing to this cause, that they came to form a third estate in the administration of government. These troops, however, like the feudal militia, were never summoned, except in case of emergency. Thus the troops of Philip and his successors consisted of feudal militia, of the *troupes des communes*, and of irregular troops, who were taken into pay (whence *soldats*, *soudoyers*), and formed certain *companies*, as they were called (*compagnies*). The imperfection of the first class, who often made war on each other, and paid but little regard to the public summons, and the rapine of the latter, led Charles V to meditate a change, and Charles VII resolved to establish a better military system. After long consultation with his nobles, he laid the foundation, in 1445, by selecting 15 captains (*capitaines*), whom he ordered to choose the bravest men from all the troops, and form them into as many companies. These companies received the name of *compagnies d'ordonnance*, which was, perhaps, earlier applied only to the royal troops, and were maintained, in war and peace, by the cities and villages. Each of these companies, at first, consisted of 600 horsemen (*gens d'armes*), exclusive of the volunteers, who soon became numerous, and were distributed in the different cities. Henceforward the feudal militia fell more and more into disrepute, and the vassals assembled their forces only on occasions of great emergency. The feudal militia was not, however, wholly supplanted by mercenaries until the 18th century. In 1448, Charles established a corresponding infantry, called *Frances-archers*, which, in conjunction with the troops just described, constituted a very respectable army. The military

system thus established in France spread thence through the other countries of Europe. (See Daniel's *Histoire de la Milice Française*, &c.) With the progress of standing armies in France, and the increase of wealth, the standing armies of other countries increased also; e. g., those of Holland, England and Germany. When this increase arrives at its highest point, and the decision of war becomes almost entirely dependent on numbers, the duty of military service is extended to all the citizens, and a system of conscription is introduced, adapted to the condition, population and necessities of a state, by which all the citizens, of a certain age, capable of bearing arms, are called upon to do military duty, for a longer or shorter period. In this way, standing armies, and the military, considered as a separate profession, are, to a great degree, abolished, and, all the citizens (with few exceptions) able to bear arms being disciplined for the protection of their country, and obliged to act in its defence, the number of troops becomes proportionate to the natural relations of states to each other, and military discipline becomes more liberal and honorable. At least, this has been the case upon the European continent. The increase of the militia renders it also more difficult to give the proportion of the military power of some states to their population, because the standing army is no longer the sole, and, with some governments, not even the chief, military power. Malte-Brun, in his *Geography*, estimates the proportion, in the principal states of Europe, as follows; though, for the reason just given, the estimate is necessarily imperfect:—

	Inhabitants.
In England, 1 soldier to	140
France,	110
Austria,	100
Russia,	90
Bavaria,	69
Prussia,	68
Poland,	60
Wurtemberg,	59
Sweden,	58
Denmark,	57
The two Hesses,	49

The proportions in other states are much lower:—

In the Two Sicilies,	180
Tuscany,	200
The Roman states,	300

Malte-Brun thinks that, on the European continent, 1 soldier to 100 inhabitants

would be found a proportion not injurious to the resources of the states. The U. States of America have now on foot not even 6442 men, to which number the army is limited by the law of 1821. The importance of militia is daily increasing. (For further information in regard to the militia, and the great changes which have taken place in standing armies during the last 20 years, see *Militia and Army*.)

ARNAOUTS, or ALEBANIANS; a people of mixed origin, probably the primitive inhabitants of Illyria and Macedonia, intermixed with Goths, Huns and Sclavonians, who have spread in the western part of Rumelia, along the coasts of the Adriatic and Ionian seas, and have sent colonies to the Neapolitan and Sicilian coasts. Their language has not risen to the dignity of a written one. They call themselves *Skypetars*; by the Turks they are called *Arnaouts*. They are divided into several tribes, among whom the Suliotes (q. v.) are partly of Greek origin. Strong and warlike by nature, the Arnaouts were the best soldiers in the Turkish army. They are frank towards friends and superiors, but allow themselves, like all rude nations, every kind of artifice and perfidy towards their enemies. The oppression, under which they formerly lived, filled them with the desire of liberty. For arts and trades they have no inclination. Agriculture they esteem not so honorable an occupation as arms. Their restless spirit is averse to the uniformity of peace. Yet they are not acquainted with the higher tactics; they never form a line of battle, and do not understand the advantages of strong positions. Hence they are not so efficient against European armies as might be expected from their personal courage. They carry the choicest weapons. Upon their breast they wear a plate of silver, and their legs are covered with a kind of greaves; their hair is cut short in front, and hid by a red bonnet, drawn down to the eyebrows.—Albania, part of the Turkish province Arnaout Vilajetti, a mountainous, maritime country, but very well adapted to the cultivation of wine, fruit, cotton and tobacco, lying along the Adriatic and Ionian seas, is the true country of the Arnaouts.—The Montenegrins (q. v.) in the hills of Montenegro, whom the Turks have not yet been able to vanquish, are distinguished among them. Among the principal towns, we may mention Janina (q. v.) and Scutari, with 12,000 inhabitants (not to be confounded

with the city of the same name in Anatolia, over against Constantinople), both residences of pachas; also Durazzo, the old *Dyrrhachium*.

ARNATTO, or ANNOTTA, is a red dyeing drug, generally imported in lumps, wrapped up in leaves, and produced from the pulp of the seed-vessels of a shrub (*bixa orellana*), which grows spontaneously in the East and West Indies. This shrub is usually about 7 or 8 feet high, and has heart-shaped and pointed leaves. The flowers, which have each 10 large, peach-colored petals, appear in loose clusters at the ends of the branches, and produce oblong, hairy pods. The seed-vessels of the arnatto shrub are, in appearance, somewhat like those of the chestnut. They each contain from 30 to 40 seeds, enveloped in a kind of pulp, of red color and unpleasant smell, not very unlike the paint called *red-lead*, when mixed with oil. In the West Indies, the method of extracting the pulp, and preparing it for sale, is to boil this, and the seeds which are mixed with it, in clear water, until the latter are perfectly extricated. They are then taken out, and the pulp is allowed to subside to the bottom of the water; this is drawn off, and the sediment is distributed into shallow vessels, and gradually dried in the shade, until it is sufficiently hard to be worked into lumps or masses for sale. Arnatto, though made in the West Indies, is an object of no great commercial importance; the demand not being sufficient to give much encouragement to its culture. It is now chiefly prepared by the Spaniards in South America, and for the purpose, especially, of mixing with chocolate, to which, in their opinion, it gives a pleasing color and great medical virtue, as well as an improved flavor. The principal consumption of arnatto depends upon painters and dyers; and it is supposed that Scott's nankeen dye is only arnatto dissolved in alkaline lye. This drug is sometimes used by the Dutch farmers to give a rich color to butter; and the double Gloucester, and several other kinds of cheese, are colored with it. The poor occasionally use it instead of saffron. In countries where the arnatto shrubs are found, the roots are employed by the inhabitants in broth, and answer all the purposes of the pulp, though in an inferior degree. The bark is occasionally manufactured into ropes; and the Indians use pieces of the wood to procure fire by friction.

ARNAUD, François-Thomas-Baculard

d'; a prolific French writer, born at Paris, 1718, where he studied with the Jesuits. In his youth, among other pieces, he wrote three tragedies, one of which, *Colygny ou la St. Barthélémy*, was published in 1740. Voltaire conceived an affection for him, and aided him with money and advice. Frederic II opened a correspondence with him, invited him, afterwards, to Berlin, received him kindly, called him his *Ovid*, and addressed a poem to him, which closed with these verses:

Déjà l'Apollon de la France
S'achemine à sa décadence;
Venez briller à votre tour,
Elevé-*vous*, s'il baisse encore;
Ainsi le couchant d'un beau jour
Promet une plus belle aurore.

France's Apollo, Voltaire, thought this comparison not very flattering to himself, and took his revenge by satirizing d'Arnaud's person and verses. At the end of a year, d'Arnaud left Berlin for Dresden, where he had received an appointment, and returned thence to his native country. During the reign of terror, he was imprisoned in a dungeon, and afterwards led a life of miserable poverty. Owing to his carelessness and extravagance, neither the aid of the government nor his own pen could preserve him from want. He died at Paris, in 1805, at the age of 86 years. His best works are, *Epreuves du Sentiment*, *Délassements de l'Homme sensible*, *Loisirs utiles*, and some others. His dramatic works are not esteemed. Only the *Comte de Comminge*, in 1790, had a short run on the stage. A part of his numerous poems appeared in 1751, in three volumes.

ARNAULD. From this old family of Auvergne, which belongs to the nobility *de la robe et de l'épée*, are here selected—1. Antony A., an advocate at Paris, from 1580, a zealous defender of the cause of Henry IV, distinguished for several political pamphlets, and for his powerful and successful defence of the university of Paris against the Jesuits, in 1594. By this he drew on himself the hatred of the Jesuits, but remained, till his death, in 1618, in possession of his honors, and was esteemed the greatest lawyer of his time. His twenty children formed the rallying point of the sect of Jansenists (see *Jansenius*) in France; the daughters and grand-daughters as nuns, in Portroyal, the sons as members of the learned society, who shut themselves up in this monastery, and are known under the name of *Mes-sieurs du Port Royal*. A son of his eldest

daughter, Isaac le Maître de Sacy, also united himself to this society, and, as translator of the Bible that appeared at Mons, played an important part in the history of Jansenism.—2. *Robert Arnauld d'Andilly*, oldest son of Antony, born at Port Royal, in 1588, died in 1674, made himself known as a very correct French writer, by his religious poems and tracts, and his translations of Josephus's History of the Jews, and of Davila's works. He was far surpassed in intellect by his youngest brother,—3. *Antony Arnauld*, the youngest child of the lawyer Antony Arnauld, born Feb. 6, 1612. Under the guidance of the abbot of St. Cyr, John du Vergier de Havranne, first head of the Jansenists in France, he devoted himself to theology, and was received, in 1643, among the doctors of the Sorbonne. In the same year, he attacked the Jesuits in two works, *De la fréquente Communion*, and *La Théologie Morale des Jésuites*, the first of which occasioned much controversy, because it applied the principles of the Jansenists to the receiving of the sacrament. He excited similar controversies by his work, *De l'Autorité de St. Pierre et de St. Paul résidente dans le Pape*, 1645, by the opinion therein maintained, that the two apostles should be regarded as of equal rank, and as founders of the Roman Catholic church. After 1650, when Jansenism had become an object of public odium, and the watchword of an important party in the state, Arnauld engaged in all the quarrels of the French Jansenists with the Jesuits, the clergy and the government, was their chief writer, and was considered their head. The intrigues of the court occasioned his exclusion from the Sorbonne, 1656, and the persecutions which compelled him to conceal himself. In his retirement, he wrote a system of logic on the principles of Descartes, and a *Grammaire raisonnée*, which were, for a long time, esteemed as school-books. After the reconciliation between pope Clement IX and the Jansenists, 1663, he appeared in public, and enjoyed the homage which even the court did not refuse to his merits and talents. To satisfy his love of controversy, he attacked the Calvinists in many controversial tracts, and, with his friend Nicole, composed the great work, *La Perpétuité de la Foi de l'Eglise Cathol. touchant l'Eucharistie*, in opposition to them. For this, a cardinal's hat was destined for him at Rome, but, as he scorned it, and as the court had become unfavorable to him, it was not conferred. On

account of the new persecutions of the court, or rather of the Jesuits, he fled, in 1679, to the Netherlands, employed himself, in his exile, in controversial writings against the Calvinists and the Jesuits, and died, in want, at a village near Liege, Aug. 9, 1694. He was a man of a vigorous and consistent mind, full of solid knowledge and great thoughts; in his writings, bold and violent to bitterness; undaunted in danger, and of irreproachable morals. He is acknowledged to have done much for the improvement of morality in the Catholic church; yet would his genius have been far more useful to the church and to literature, had not his situation and character involved him in a multitude of controversies, which rendered his literary activity, for the most part, fruitless to posterity.

ARNAULT, Antoine Vincent, born at Paris, 1766, an esteemed dramatic poet, laid the foundation of his fame by his tragedy *Marius à Minturnes*, which was first performed at the theatre in 1791. Soon after appeared his *Lucrèce*. After the overthrow of the throne, Aug. 10, 1792, and the tragical scene of the 2d of September, he took refuge in England, and thence passed over to Brussels. At his return, he would have been arrested as an emigrant, but the committee declared the law not applicable to the learned author of *Marius*. He now wrote some operas and the tragedies *Cincinnatus* and *Oscar*. In 1797, he went to Italy, where general Bonaparte committed to him the organization of the government of the Ionian isles. At that time, he wrote, partly in Venice, his tragedy *Blanche et Mont-Cassin, ou les Vénitiens*. In 1798, he embarked in the fleet for Egypt, but was obliged to remain in Malta, on account of the sickness of his brother-in-law, Regnaud de Saint Jean d'Angély. The frigate, in which he was returning to France, was taken by the English; yet A. gained his freedom, and went to Paris, where his tragedy *Les Vénitiens* was performed, in 1799. In the same year, he became a member, and, in 1805, president, of the national institute. In Sept. 1808, he was named counsellor and secretary-general of the university, which offices he retained till 1814. As such, he took part in the preparation of the *Dictionnaire de l'Académie*. He also drew up for the emperor the general report concerning the decennial prizes. After the abdication of the emperor, he went to meet the king at Compiègne, but, in the year 1815, lost all his offices, which Napoleon restored

to him during the "hundred days." He was then member of the deputation from the chamber of deputies to the army. The decree of the king of the 24th July banished him to the distance of twenty leagues from Paris. In consequence of the decree of Jan. 17, 1816, he found himself compelled to fly, and now resided sometimes in Belgium, sometimes in Holland. His four years' banishment, and his exclusion from the national institute, arose, perhaps, from the erroneous supposition, that he had been one of the editors and contributors to the journal *Le Nain jaune*. His tragedy *Germanicus* (translated into German, also twice into Italian) was performed, in 1817, in the *Théâtre Français*, at Paris, to a very full house, and occasioned great disturbance in the theatre, as the opposite political parties made it the occasion for the clamorous expression of their opinions. The design of effecting the recall of the author from banishment, by the representation of this piece, was disappointed, and it was not repeated. A collection of his works appeared, in 1818, at Brussels, in 6 vols., and a new collection at Paris, 1824. In Nov. 1819, he obtained permission to return to France; his pension was also renewed. He has not yet been restored to his seat in the institute. Among his works are several speeches and treatises, of the year 1804, on the system of public instruction. He has also written fables (1812; new edition, 1815), and a comedy (*La Raçon de Duguesclin*, 1813). His latest tragedies are, *Les Guelfes et les Gibelins*, *Lycurgue*, and *Guillaume I*, 1826, in which the character of Philip II is very well drawn. He has also taken part in several periodicals, especially in the *Veillées des Muses*, 1797; in the *Mercure*, 1815; and in the *Libéral*, at Brussels, from 1816 to 1820, in which most of the articles on morality, literature and philosophy were written by him. He was one of the editors of the *Miroir des Spectacles, des Lettres, des Mœurs et des Arts*. As such, he was obliged to defend himself, in 1821, before the *police correctionnelle*, at Paris, because some of the articles were considered to have a political bearing, but was entirely acquitted, as were also the other editors. With Jouy, Jay and Norvins, he has undertaken, on an excellent plan, the *Bibliographie nouvelle des Contemporains*. He has also written *Vie Politique et Militaire de Napoléon* (with plates). Napoleon remembered him in his will, and bequeathed him a legacy of 100,000 francs.—Of his sons, the eldest, Lucien Emile, former

prefect of the department of Ardèche, has also gained celebrity as a tragic poet, particularly by his *Régulus*, 1819. An earlier production, *Pertinax*, published under his name, was written by his father.

ARND, John; a Lutheran minister, distinguished for piety. He is the author of a work, which has been translated into almost every language of Europe, and has been extensively read in Germany for 200 years. Its title is, *True Christianity* (*Wahres Christenthum*). A. was born, in 1555, at Ballenstedt, in Anhalt, and died, in 1621, at Celle, after he had been a minister in different places, and suffered from the Calvinists, and even the Lutherans. A few hours before his death, he preached from the text, Psalm cxxvi., "They who sow in tears shall reap in joy," and, on arriving at his house, spoke of his discourse as a funeral sermon. His work above mentioned has been reprinted since his death, in 1777, by Feddersen, and in 1816, by Sintenis.

ARNDT, Ernst Moritz; a German author, who contributed towards the liberation of Germany from the dominion of the French, by his bold and patriotic writings. He was born in Pomerania, and, in 1806, was professor of philosophy at Greifswald. At first, he was an admirer of Napoleon, though moderate in his praises, but became his most decided enemy, when he discovered his views of conquest. A. was obliged to fly to Sweden, from whence he returned to Germany, when it threw off the French yoke. At this time, he wrote a number of pamphlets and poems, all intended to inflame the hatred of his countrymen against the French. These writings are distinguished by patriotic, but often overstrained sentiments, and, at the same time, by confused notions of politics, liberty, German nationality, and the old German empire. The liberality of his sentiments afterwards involved him in the famous demagogic inquisitions in Prussia, when he was professor of the university of Bonn. How unwisely the Prussian government conducted, in its political prosecutions, is shown by its treatment of A. From a man of such vague notions on politics, no danger was to be feared. A. has written much on history. He is a man of uncommon talents, but no politician.

ARNE, Thomas Augustin, whom the English consider as one of their first composers. He was born at London, in 1704, the son of a respectable upholsterer, and received the first part of his education at Eton. He was intended for the

study of the law, but a strong inclination led him to devote himself to music, and he secretly carried an old spinet into the garret of his father's house, in order to pursue his favorite occupation. For a long time, he was obliged to keep it secret, but his father was finally induced to yield to his wishes, after he had made great progress in the art. Discovering that his sister had a fine voice and a great fondness for music, he prevailed on her to choose the profession of a singer. He composed a part for her in his first opera, *Rosamond*, after the text of Addison, which was performed, in 1733, at Lincoln's-Inn fields, and was received with great applause. Then followed Fielding's comic opera, *Tom Thumb*, or the *Tragedy of Tragedies*. His style in the *Comus*, 1738, is still more original and cultivated. The public was delighted with his lively, cheerful and natural melodies, and with the truth and simplicity of his expression. In 1740, he married Cecilia Young, an excellent singer, educated in the Italian school. They went, in 1742, to Ireland, where they were well received. After two years, he was engaged as a composer, and his wife as a singer, at the Drury lane theatre, in London. He composed several songs in 1745, for the Vauxhall concerts. After having composed two oratorios, and several operas, one of which was called *Eliza*, and having received the title of doctor of music, at Oxford, he attempted a composition in the Italian style (*Metastasio's Artaserse*), which was very popular. His talents, however, were better adapted to the simple, lovely and soft, than to the grave and elevated. He composed, also, several of the songs in Shakespeare's dramas, and various pieces of instrumental music. He died in 1778. His sister was afterwards a distinguished singer under the name of *Mrs. Cibber*: his brother, also, went on the stage.

ARNO (anciently *Arnus*); one of the largest and finest rivers of Italy, which divides Tuscany into two parts, and washes Florence and Pisa. The A. rises in the Apennines, on the east of Florence, near a village called *S. Maria della Grazia*, on the borders of Romagna, 15 miles W. of the sources of the Tiber; it then turns southward towards Arezzo, where it is increased by the lakes of the Chiana; after which it runs westward, dividing Florence into two parts, and, at length, washing Pisa, falls, 4 miles below it, into the Tuscan sea. This river has been sung by many poets, on account of the

beautiful banks between which it meanders, and the cities with which they are adorned. From any hill in the neighborhood of Florence, or at the confluence of the Chiana, the view into the valley of the A. is charming. In ancient times, the Etruscans erected here extensive works of hydraulic architecture, long before any other Italian nation had arrived at such a degree of civilization. Niebuhr, in his *Roman History*, division *Tuscans and Etruscans*, says as follows:—"The greatest part of Tuscany is mountainous. The rich valley, through which the Arno flows, was, in ancient times, covered by a lake and marshes. From Segna to Fiesole, and toward Prato, was one lake: the Gonfalina closed up the valley: a passage was made through this rock, to open a way for the river towards Pisa. The water covered this space at the time of the erection of the walls of Fiesole, as is shown by many openings which were designed for draining it off. It covered the site of modern Florence, whose origin, it is, therefore, absurd to refer to the Etruscan times. A section was also cut at La'ncisa (the cut), to drain the rich fields of the upper valley of the Arno; or it may be that the rivers, which now form this part of the Arno, formerly fell into the Clanis, and the object was, to diminish the water of the Tiber. The marshes through which Hannibal marched are, at present, dry on the right bank of the Lower Arno." In the time of Napoleon, the A. gave its name to an extensive and populous department in the *grand empire*; Florence being the capital. The population amounted to about 600,000.

ARNOBIUS the Elder, called, also, the *African*, was, about A. D. 300, teacher of rhetoric, at Sicca Veneria, in Numidia, and, in 303, became a Christian. While yet a catechumen, he wrote 7 books of *Disputationes adversus Gentes*, in which he refuted the objections of the heathens against Christianity with spirit and learning. This work betrays a defective knowledge of Christianity, but is rich in materials for the understanding of Greek and Roman mythology. Hence it is one of the writings of the Latin fathers, which, like the works of his disciple Lactantius, are particularly valued by philologists. Orelli has published the last and best edition (Leipsic, 1816). From the younger A., a Gallic divine, in the last half of the 5th century, we have only an insignificant commentary on the Psalms, which betrays the principles of the Semi Pelagians.

ARNOLD of Brescia, one of the disciples of Abelard, returned, full of new ideas on religion and the church, in 1136, to his native city. His bold and lofty spirit, his knowledge of Christian antiquities, and his vehement eloquence in his public harangues, gave authority to his reproaches against the abuses of the church. Thus he instigated the people against the clergy; and, in France, where he was obliged to flee in 1139, he also found numerous adherents; for the immorality and avarice of the clergy had every where excited discontent. The fierce flame which he had kindled could not be extinguished by the excommunication pronounced against him and his adherents (Arnoldists) by Innocent II. A. preached his doctrine in safety at Zurich, in Switzerland, until 1144, when he appeared at Rome, and, by the powers of his eloquence, occasioned a violent excitement among the people against the clergy. The furious multitude, whom he himself could no longer restrain, revered him as their father, and even the senate protected him, till Adrian IV, in 1155, laid an interdict upon the city. This disgrace, never before experienced, subdued the Romans. They sued for mercy, and A. was obliged to fly. He was taken in Campania, and burnt at Rome, as a heretic and a rebel; his ashes were thrown into the Tiber, and his party was suppressed. But the spirit of his doctrine descended upon the sects which arose during the same and the following centuries.

ARNOLD, Benedict. (Our readers will excuse the length of the present and some other articles of American biography, on account of the reasons given in the preface.) This man, one of the most distinguished generals in the American army during the earlier part of the contest of the colonies with Great Britain, and subsequently infamous as a traitor to his country, was born in Connecticut, of obscure parentage, and received an education suitable to an humble condition. The occupations of his youth were not fitted to prepare him for the functions which he was called upon to exercise in the sequel. At first a dealer in horses, he sustained losses in his trade. Eager for renown, greedy of money, the troubles of his country inspired him with the hope of acquiring fame and fortune by the profession of arms: accordingly, on the breaking out of the revolutionary war, he embraced the cause of his countrymen with enthusiasm, and took the command of a

company of volunteers at New Haven. He soon won a high military reputation. Washington, encouraged by secret advices that the Canadians were inclined to make part of the Union, projected the surprise of Quebec. This hazardous undertaking required leaders at once active, vigilant, bold, and inflexibly patient. He committed it to Montgomery and colonel Arnold, as the most capable. He exhorted them, with extreme earnestness, to treat the Canadians as friends, as fellow-citizens, and to punish severely the least irregularities of the soldiery. Arnold began his march in the month of September. He conducted his small force through deserts which man had never before penetrated. The river of Kennebeck had overflowed its banks; he crossed it by swimming, or on rafts. Unknown streams presented a new obstacle: he diverted their course. The snow fell in abundance; a few hours of sun during the day were insufficient to thaw the ice formed in the long and severe nights of the northern autumn; but nothing could arrest his progress. He was always in the van with the pioneers, who cut a passage through this wild country, and, at the end of each march, had arrived before the enemy knew of his approach. He thus put in practice a maxim which he was fond of repeating: "In war, expedition is equivalent to strength."—The last division, conducted by a man less resolute and persevering, returned; while he, at the head of the two first, sustained the courage of the soldiers, who were exhausted by fatigue, hunger and every species of suffering. After two months of toil, all impediments were overcome, and he encamped before the fortress, but with a band so much enfeebled, that he was obliged to await the arrival of Montgomery, who approached by another route. Montgomery died gloriously in an assault, Dec. 31, 1775. Arnold was severely wounded in the leg, and forced to convert the siege into a blockade. He was not, however, to be daunted by any reverse. From the bed to which his wound confined him, he infused into the little army, the command of which had now devolved upon him, his own spirit of determination and confidence. The enterprise failed: the courage and intelligence, which he exhibited throughout, placed him, nevertheless, in the first class of American officers. He served with better fortune, and still greater distinction, in the subsequent campaigns, and bore a considerable part in that in which Burgoyne and his army

were made prisoners. He fought with his usual intrepidity in the engagement which immediately preceded the capitulation. The first to throw himself into the intrenchments of the enemy, he was animating his men by his example, when a ball shattered the leg already wounded at the siege of Quebec. As he was borne from the ranks to his tent, he still issued orders for the continuance of the assault. The boldness of Arnold was so great, that he was accused of a disposition to entangle himself rashly in perilous situations; but it could not be denied, that his rapid discernment supplied him, in the midst of danger, with the surest expedients, and that success always justified his daring. The admiration of his fellow-citizens kept pace with his services. His love of glory was accompanied with an equally strong love of pleasure and dissipation, and he was very unscrupulous about the mode of obtaining the means of gratifying it. His ill-gotten wealth he squandered in frivolous expenses, or mere ostentation. Montreal, the second city of Canada, was, under his command, a scene of injustice and rapacity, and the Canadians soon abandoned the design of joining the confederation. The attempt on Canada was abandoned, and, the wounds of Arnold being not yet healed, he could be invested only with some stationary command. Washington, though he detested his vices, did not wish to leave his talents idle. The English having evacuated Philadelphia, he directed Arnold to take possession of that city with some troops of the Pennsylvania line,—a delicate charge for a man so prone to extend his powers, and define them according to his interests. It was not long before he displayed in this city a magnificence as foreign to the habits of the country, as it was unseasonable in the midst of the calamities of war. He even lodged in his house the French envoy and all his suite on their arrival. From this time, too, he began to profess an extraordinary attachment to the French, and great zeal for an alliance with them. To relieve himself from the difficulties into which his extravagance had plunged him, he resorted to the same oppression and extortion which had rendered his authority odious to the Canadians. Under pretence of the wants of the army, he forbade the shopkeepers to sell or buy; he then put their goods at the disposal of his agents, and caused them afterwards to be resold with a profit. He prostituted his authority to enrich his accomplices, and squabbled with them about the division

of the prey. The citizens applied for redress to the courts of justice. But, with his military authority as his shield, he set at defiance both justice and the laws. At length, however, a representation of the grievances which the state was suffering, was made to congress by the president of the executive council of Pennsylvania, a man of firm and upright character, who had endeavored in vain to repress the overweening and predatory spirit of Arnold, and a committee was appointed to inquire into the subject. Arnold replied to the charges with arrogance. Some members of congress were of opinion that he should be suspended from his military functions until the investigation of his public conduct was brought to an issue; but the accusation had become an affair of party, and he had influence enough to cause this proposition to be set aside. Congress at length resolved to lay the complaints against him before the commander-in-chief.—As soon as Arnold saw that the resolutions of congress would be of this tenor, he resigned the command which he held in Philadelphia. He was tried before a court martial, and condemned, January 20, 1779, to be reprimanded by the commander-in-chief. Congress ratified the sentence, and Washington, having caused the culprit to appear before him, performed the task with the considerate delicacy which he thought due to so distinguished an officer. Arnold, however, quitted the army, and, thenceforth, nourished an implacable hatred towards the cause which he had so brilliantly defended.—The embarrassment of his affairs was at this time such, that private aid would not suffice to extricate him. He had, some time before, formed a partnership with some owners of privateers, who paid his share of the expenses of equipment, and expected to be compensated, for their advances, by his countenance and protection; but the chances were adverse, and, instead of profits to be divided, there were losses to be borne. Arnold, now without credit or authority, was no longer regarded by the owners as any thing more than an ordinary partner. They exacted his proportion of the loss, and their knowledge of his difficulties only served to render them more urgent in their suit. In this extremity, he tried a last resource.—Congress, at the commencement of the revolution, committed an error which proved of great detriment to the finances. It intrusted some officers with agencies which had no immediate connexion with the business of command or military service.

Arnold, the least proper for such trusts, was charged with considerable ones, and had large claims for monies and stores furnished in the expedition to Canada. The commissioners, to whom they were referred for settlement, reduced them very considerably. He appealed from their decision to congress, who pronounced that the commissioners had shown more lenity than rigor in the liquidation of his accounts.—Disappointed in all his expectations, Arnold at last determined to betray his country, and to make his treason in a high degree useful to England, that it might procure him a full pardon for his share in the revolt of the colonies. He wished to be regarded as a subject returned to his allegiance, and worthy of the honorable rewards due to faithful and virtuous citizens. As a first step, the British commanders were to be made acquainted with his discontent, but in so guarded a manner as to leave a retreat open, in case the offers, which might be made to him, should not prove satisfactory. Particular circumstances facilitated the communications between them.—As soon as the English commander was apprized of the disposition of Arnold, he despatched emissaries charged with such offers as were most likely to determine a man whose hesitation was only about the means and conditions. Some of Arnold's proceedings, about this period, warrant the supposition, that he at first meant to tamper with his brother officers, but relinquished this design on more mature reflection. He took good care that nothing of his real intentions should be divined by the subaltern English agents; but there was, at New York, a man whom he thought he could trust without risk. This was Charles Beverley Robinson, an American by birth, and a colonel in the British army, whose property all lay within the U. States. His mansion, situated on the Hudson, was included in the American lines, and three miles lower than the forts upon the opposite bank. The commanding officers of West point, having found it deserted, had made it their quarters. Arnold wrote to this officer, that the ingratitude of his country, and other considerations to be afterwards disclosed, had produced a change in his political sentiments; that he aspired to merit, thenceforward, the favor of the king; that he could render signal services; and wished to enter into a correspondence on the subject with sir Henry Clinton.—This overture was well received, and, a direct communication with the English general being established,

it was agreed that Arnold should dissemble, with the utmost care, his discontent; that he should make every effort to obtain a command from general Washington; that, as soon as he succeeded, he should consult with sir Henry Clinton as to his future movements, and be guided by the instructions which would be given to him.—From this time, he entirely altered his manner and language. He affected to have forgotten the affront of the reprimand, and pretended to feel a more lively attachment than ever to the cause of independence.—The country through which the Hudson flows was the principal theatre of the war. A station in this quarter would, he thought, best answer his purpose. He was well acquainted with the localities. He examined, with minute attention, in what spot, by what operations, he could most beneficially second the enterprises of the British, and which was the most important position to betray into their hands. New York was, at this time, in the hands of the British, who had assembled there the greatest part of their troops. The fortress of West point, a military station of very great importance, is distant 20 leagues from this city. Arnold aimed at the chief command of this post, with a view of betraying it into the hands of the British, with the garrisons, and the arms and immense stores which were deposited there; for fort Clinton contained, besides the ammunition necessary for its own defence, the stock of powder of the whole army.—The command of the fort had been intrusted to general Howe, an officer of tried courage, but of limited capacity, who could be employed elsewhere without inconvenience to the service. The wounds of Arnold did not as yet allow him to mount on horseback; they did not disqualify him, however, for conducting the defence of a citadel. He had early secured the patronage of some of the leading men of the state of New York, and Washington was prevailed upon to consign West point to him. Being a traitor to his own country, he was apprehensive lest those to whom he was about to sell himself might prove treacherous to him. He felt anxious to receive the price of his ignominious bargain at the moment of its ratification; but he could extort nothing more than a promise of 30,000 pounds sterling, and the assurance that he should be maintained in the British army, in the rank of brigadier-general, which he already held. About a month previous (July 10, 1780), the first division of the French army arrived at Newport, in the state of Rhode

Island. The situation of the English became every day more and more critical. Sir Henry Clinton had relinquished his projected expedition. He urged Arnold to fulfil his engagements, and supposed the thing easy for a general who was master of the forts and the river; but there were, in fact, numerous obstacles in the way, and of these the presence of the commander-in-chief was the most serious. Arnold knew his vigilance and activity. He insisted, therefore, with Clinton, on the necessity of deliberation, adding, however, that all should be in readiness to improve the first favorable opportunity. A young officer of foreign extraction served in the British army. He was endowed with all the qualities which render a man useful to his country and dear to society. This was JOHN ANDRÉ, adjutant-general of the British army. General sir Henry Clinton had taken him as his aid-de-camp, and did not disdain him as a counsellor. To him Clinton committed the business of negotiating with Arnold. A correspondence ensued between Arnold and André, under the supposititious names of *Gustavus* and *Ander-son*. Mercantile relations were feigned, to disguise the real object, and an American, whose dwelling stood between the lines that separated the two armies, served as a common messenger. At this period, the rumor began to spread of a second division of the French army having sailed, and that Washington only awaited its arrival to begin the siege of New York. The marshal de Castries, who then administered the department of the marine with so much reputation, had, in fact, advised the French envoy of the approaching departure of a second expedition. Clinton caused Arnold to be told that it was time to act; that a day must be fixed for the surrender of the forts; and that, if time were given to the allies to effect a junction, it might no longer be in the power of Arnold himself to fulfil his engagements. He asked, also, plans of the forts, and the instructions necessary for the safe guidance of the British troops when they were sent to take possession of West point. Arnold replied to these new importunities in the language concerted with André:—"Our master goes away the 17th of this month. He will be absent five or six days. Let us avail ourselves of this interval to arrange our business. Come immediately, and meet me at the lines, and we will settle definitively the risks and profits of the copartnership. All will be ready; but this inter-

view is indispensable, and must precede the sailing of our ship." It was thus that Arnold apprized Clinton of the approaching departure of the commander-in-chief. Washington had, in fact, given a rendezvous to count de Rochambeau, general of the French land-forces, and to the chevalier de Ternay, commander of the squadron. They were to meet at Hartford, in Connecticut, to confer about the operations of this and the ensuing campaigns. But Arnold was not correctly advised as to the period of Washington's departure, and the mistake led to important consequences. He had, in other letters, solicited an interview with André, and he now exacted it as a condition indispensable for the prosecution of the enterprise. Hitherto, every thing had succeeded beyond his hopes. There had been a total absence of those mysterious rumors, and vague surmises, which accompany, and seem to portend, a great conspiracy. Never had so momentous a plot been more felicitously brought so near to its execution. This profound secrecy was owing to the precaution of Arnold, in not having unbosomed himself to any of his own countrymen, and in admitting only André and Robinson as correspondents. He took credit for this policy, and his urgency for an interview with André arose chiefly from his resolution to confide to the hands of this officer, alone, the maps and particular information which Clinton demanded.—The 17th of September, the day specified for the departure of Washington, passed, and he was still at West point. Arnold advertised Clinton of the delay, and explained his mistake by mentioning a circumstance which had not been before noted. The 17th fell on a Sunday,—a day which the Americans consecrated entirely to the duties of religion, and on which most of them abstained even from journeys, which, elsewhere, would be thought indispensable. Clinton admitted this explanation the more readily as he knew that Washington respected the scruples of others, and was himself very religious. To obviate untoward accidents, it was agreed that André should leave New York only on the 19th of September, and reach the American forts about the 20th. He accordingly embarked in the night on board the Vulture sloop of war. Clinton sent with him Beverley Robinson, the colonel through whom Arnold had made his first overture. He expected that the prudence of this officer would moderate the ardor of André. Moreover, Arnold

occupied Robinson's house, and the private affairs, which he, as a refugee, had to adjust with congress, furnished a plausible pretence for his approaching the American lines and posts. September 20, they arrived almost opposite to fort Montgomery, situated on the same side as West point, five miles lower down. They cast anchor in sight of the nearest American redoubts, but beyond the reach of some small cannon, the only artillery of those redoubts. The Vulture got aground at low water. The movement on board, and some signals which she made, alarmed the vigilance of colonel Livingston, who commanded at Verplanck's point. He ascertained, on reconnoitring, that the sloop might be sunk by one or two pieces of heavy cannon; and as those of the forts which he commanded were of too small a caliber, he requested larger from Arnold. The general refused them, to the great surprise of Livingston. But tacit obedience is the life of discipline, and he acquiesced in some idle excuse. Two days elapsed after the Sunday, and still Washington had, apparently, made no preparations for departure. Arnold was himself uneasy at this disappointment; but the apprehension of exciting suspicion by too frequent communications prevented him from making it known to Clinton. The English general was informed of it through another channel. He knew the unprincipled character of Arnold, and could comprehend the probability of a snare masked by a counterfeit scheme of treason. He was the more disquieted as André and Robinson were already far on their way; and there was equal inconvenience in leaving them ignorant, or advising them of their danger. If Arnold were sincere in his defection, his return to New York would disconcert all Arnold's measures, and expose him to serious risks. If he deceived the British, all the risks were for André and Robinson. They had not, as yet, been able to communicate with the shore, but, persuaded that Washington must have set out for Hartford, they put in execution a stratagem, arranged beforehand with Arnold, to facilitate the rendezvous. Robinson wrote to the American general Putnam, as if to transact with him business relating to his property, and proposed an interview. In this letter was enclosed another to general Arnold, wherein Robinson solicited a conference with him, in case Putnam should be absent. The packet, being directed to Arnold, would be opened only by him; but if, perchance, it fell into other hands, the

whole could be read without exciting suspicion of a plot. This letter was despatched to the shore by a flag of truce as soon as the sloop had cast anchor. It happened to be on the very day fixed by Washington for his departure. He had never meant to set out earlier, and had neither sanctioned nor contradicted the various rumors current on the subject. He left his quarters in the morning, and, on reaching the bank, found Arnold there with his barge, ready to transport him to the other side. In crossing, Washington remarked the sloop with the English flag, and took a spy-glass to observe her motions more narrowly. Some moments after, he gave to an officer near him, in a low voice, according to his usual manner, an order probably of no consequence, which Arnold was unable to overhear.—Arnold was guilty, and whatever he could not immediately penetrate, alarmed his fears. He supposed that the general could not remain ignorant of the circumstance of the flag of truce, and, doubtful even whether he might not be already acquainted with it, he thought it well to show him the two letters which he had received, asking him, at the same time, what course he ought to pursue. Washington, in the presence of several persons, dissuaded him from seeing Robinson, and directed him to give for answer to this officer, that his private business appertained exclusively to the jurisdiction of the civil authority. They touched the shore just as this conversation ceased. The commander-in-chief, whose presence kept Arnold in the greatest perplexity, landed, and pursued his journey to Hartford. Thus was the main obstacle removed, and the plot could proceed. The opinion uttered by Washington, in such positive terms, concerning the conference with Robinson,—the order heard by several persons present,—became, however, a law for Arnold, with respect to his ostensible conduct. It was, in this way, the first obstacle that thwarted the measures concerted between him and André. They could not meet publicly under the auspices of a flag of truce, and, though André had used this means to reach the lines, they were obliged to arrange a secret interview.—On the morning after the departure of Washington, Arnold sought out a man called *Joshua Smith*, well known to be devoted to the English, although he resided within the American posts. He made him the bearer of two passports to be carried on board the Vulture,—one for André, under the fictitious name of *Anderson*; the other for Charles Beverley

Robinson, who had not the same reason for practising disguise. He charged him with a letter also, in which he urged them to repair to him on shore. Smith waited until night-fall, and then proceeded to the English sloop in a boat which Arnold had provided for him. André and Robinson expected that Arnold would himself visit them, and were surprised when his emissary, Smith, appeared before them alone. Robinson declared that he would not go on shore, and used every effort to deter his companion; but the young man, full of impatience and ardor, saw only the chances of success, would listen to no remonstrance, and could not brook the idea, either of returning to New York without having executed his mission, or of exposing the main enterprise to miscarriage, by a caution which his rivals would infallibly stigmatize as cowardice. He put on a gray surtout, to hide his uniform, and accompanied Smith on shore. Arnold was waiting to receive him at the water's edge. They discoursed there for some time; but, as they were liable to be surprised, Arnold led him towards the house of Smith, when he immediately laid before him plans of the forts, a memoir, composed (for a better use) by the chief engineer, Duportail, on the means of attacking and defending them, and minute instructions with respect to the measures to be taken by the British for the occupation of them, when he (Arnold) should have done his part in opening the way. They presumed that Washington had already reached Hartford, and they were right; for he was there, at the same hour, in consultation with the French commanders.—Arnold and André, calculating anxiously the probable length of Washington's absence, supposed that he would return in three or four days, that is, on the 25th or 26th of Sept., and one or other of these days was fixed for the execution of the plot. It was settled that André should go back in all haste to New York; that the English troops, which were already embarked, under pretence of a distant expedition, should be held ready to ascend the river, and sail at the first signal; that, to facilitate the reduction of West point, Arnold should march out of the forts all the troops destined for the defence, and entangle them in gorges and ravines, where he would pretend to await the English assailants, while these were to debark on another side, and enter by passes left unguarded; and, at all events, the garrisons and troops were to be so distributed, that, if they did not sur-

render at the first summons, they must be immediately cut in pieces. He informed André, that the chain which was stretched across the river from West point to Constitution island, forming, when perfect, an effectual bar to the passage of the river, was now no longer an impediment. He had detached a link, ostensibly to have it mended; the smiths would not return it for some days; and the two ends of the chain were held together by a fastening too weak to bear even a slight concussion. The English would know at what moment they were to advance, by the kindling of fires, in the night, under the directions of Arnold, on the adjacent eminences. A single cannon fired from their ships, to be followed by a similar discharge from the shore, would proclaim that they had perceived the signals. Other tokens agreed upon were to furnish, successively, information of the several distances of the British forces in their approach. When they had arrived within three miles of the fortress, two English officers, in American uniform, were to ride full gallop to Arnold's quarters, to learn how matters stood, and to hasten with the intelligence to the British naval commander. Then only was Arnold to put in motion that portion of the garrison which remained in the works, and station it at posts which would not be attacked. They agreed upon the countersign to be given on the 24th and 25th. Arnold delivered to the Englishman draughts of all the works, and of the passes leading to them, several memoirs, written with his own hand, and full returns of the garrisons and the forces of each division of the army. He had never before allowed a single paper to go out of his hands, which might expose him to detection. But he now saw no danger in confiding these to André, who was to re-embark directly on board the sloop, and make sail for New York.—André returned alone to the beach, whence a boat was to convey him to the Vulture. But this arrangement was defeated by an obstacle wholly unexpected. At an early hour, Livingston, still disturbed at the proximity of the sloop, had, of his own authority, caused a four-pounder to be dragged from his redoubt to a point of land from which the shot could reach the vessel. She was aground, and had already sustained some damage from the small piece of the American officer, when she began to float again at the rising of the tide. Robinson took advantage of this circumstance to weigh anchor, and remove some miles lower down, beyond

the reach of a similar attack. This change of station attracted the notice of the master and rowers of the boat in which André expected to regain the sloop. They were Americans. The movements which they had witnessed for the two last days were unusual; and, although men of their description, accustomed to ferry all persons indifferently from one side of the river to the other, did not affect to be of any party, they were unwilling to commit themselves. When André proposed to them to convey him to the sloop, they told him that it was too far, and peremptorily refused to go. He went back immediately to Arnold, and urged him to exert his authority in so serious a predicament. But the latter, perplexed at his unlooked-for re-appearance, and already harassed with various disappointments, durst not attempt to compel the men, and told him he must submit to return by land; to lay aside his uniform altogether, and assume another dress. André changed his coat for one which Smith provided. Arnold now wished to withdraw the papers which he had intrusted to him; he thought it hazardous to send them by land. But André was very desirous of showing to Clinton with what punctuality he had executed his mission. These papers were a trophy of which he would not, therefore, allow himself to be dispossessed. He observed to Arnold, that danger of any kind could now no longer be in question, except so far as to show that they both despised it; and added, that he would keep the papers, which brought him into greater peril than Arnold, and, to allay his fears, would secrete them in his boots. Arnold submitted, and, leaving André in Smith's house, returned to his quarters, from which he had been absent since the day before. The patrol, spread through the whole neighborhood, made it imprudent for André to begin his journey before twilight. He was accompanied by Smith: each had a passport from Arnold, "to go to the lines of White plains, or lower, if the bearer thought proper; he being on public business."—They were accosted, at Crompond, by an American officer of militia, who told them that it was too late for them to reach, that evening, any other quarters. In order not to awaken his suspicions, they resolved to pass the night there. The next day, 23d, they crossed the Hudson to King's ferry, pushing forward when they were not observed, and slackening their pace to conceal their eagerness, wherever they were likely to be seen. By means of their passports,

they traversed all the American posts without molestation. They arrived, uninterrupted, a little beyond Pine's bridge, a village situated on the Croton: they had not, however, crossed the lines, although they could descry the ground occupied by the English videttes. Smith, looking all around, and perceiving no one, said to André, "You are safe—good by," and retook, at full speed, the road by which they had come. André, on his part, believing himself out of danger, and all further precaution superfluous, put spurs to his horse. He had proceeded four leagues onward with the same good fortune; he could see the Hudson once more, and was about entering Tarrytown, the border village, when a man, armed with a gun, sprung suddenly from the thickets, and, seizing the reins of his bridle, exclaimed, "Where are you bound?" At the same moment, two others ran up, who were armed in like manner, and formed, with the first, part of the patrol of volunteer militia that guarded the lines. They were not in uniform, and André, preoccupied by the idea that he was no longer on enemy's ground, thought that they must be of his own party. It did not, therefore, occur to him to show them his passport, which was sufficient to deceive Americans, and could not alter his destination, if those who arrested him were of the English side. Instead of answering their question, he asked them, in his turn, where they belonged to. They replied, "To below,"—words referring to the course of the river, and implying that they were of the English party. "And so do I," said André, confirmed in his mistake by this stratagem. "I am," continued he, in a tone of command, "an English officer on urgent business, and I do not wish to be longer detained." "You belong to our enemies," was the rejoinder, "and we arrest you." André, struck with astonishment at this unexpected language, presented his passport; but this paper, after the confession he had just made, only served to render his case more suspicious. He offered them gold, his horse, and promised them large rewards, and permanent provision from the English government, if they would let him escape. These young men, whom such offers did but animate the more in their duty, replied, that they wanted nothing. They drew off his boots, and detected the fatal papers. They no longer hesitated to carry him before colonel Jameson, who commanded the out-posts. When questioned by that offi

cer, he still called himself *Anderson*, the name mentioned in his passport, and evinced no discomposure; he had recovered all his presence of mind, and, forgetful of his own danger, thought only of Arnold's, and of the means of extricating him. To apprise him of it safely, he begged Jameson to inform the commanding officer of West point that Anderson, the bearer of his passport, was detained. Jameson thought it more simple to order him to be conducted to Arnold. He was already on the way, and the thread of the conspiracy was about to be resumed in the interview of the accomplices, when the American colonel, recollecting that the papers found upon the prisoner were in the hand-writing of Arnold himself, and adverting to the several extraordinary features of the business, sent, in all haste, after the pretended Anderson, and had him conveyed, under guard, to Old Salem. He despatched, at the same time, an express to Washington, charged with a letter containing a circumstantial account of this affair, and with the draughts and other papers taken from the prisoner. But the commander-in-chief, who set out on the same day, the 23d of September, to return to his army, had pursued a different route from that by which he went to Hartford, and the messenger was compelled to retrace his steps without having seen him. This delay proved the salvation of Arnold.—Jameson was a gallant soldier, but a man of an irresolute temper, and no great sagacity; moreover, treachery on the part of Arnold appeared impossible to one of an ingenuous and honorable character. He began to view his first suspicions as an outrage to an officer distinguished, as Arnold was, by so many noble exploits, and, wishing to reconcile the deference due to him with the performance of his own duty, he wrote him, that Anderson, the bearer of his passport, had been arrested on the 23d.—Arnold did not receive this intimation until the morning of the 25th. It was on a Monday; and the same day, or the one following, had been selected for the consummation of the plot. Until that moment, he had believed success infallible. The exhilaration which this belief produced was even remarked, and he ascribed it to his expectation of the speedy arrival of his general, "for whom he had pleasant news." He was busy with the appropriate arrangements for the reception of a body of more welcome visitors, when he received the letter of Jameson. Those who were present on the occasion recol-

lected, afterwards, that he could not, at first, conceal his dismay and extreme agitation; but that, recovering himself quickly, he said, in a loud voice, that he would write an answer; and, dismissing all about him, withdrew, to reflect on the course which it was best to adopt. The entrance of two American officers, however, interrupted his musings. They were sent by the commander-in-chief, and informed Arnold, that he had arrived that morning at Fishkill, a few leagues from West point; that he was to have set out a few hours after them, and could not be far distant.—Thus did the most alarming circumstances rapidly succeed each other. The traitor had no resource but a precipitate flight. Suppressing his emotion, he told the two officers that he wished to go and meet the general alone, and begged them not to follow him. He then entered the apartment of his wife, exclaiming—"All is discovered:—André is a prisoner:—The commander-in-chief will know every thing:—The discharge of cannon, which you hear, is a salute, and announces that he is not far off:—Burn all my papers:—I fly to New York." He embraced her, as well as their infant child, whom she carried in her arms, and, solely intent on his escape, left her, without waiting for her reply, mounted the horse of one of the two officers, and rushed towards the Hudson, which was not far from his house. He had taken the precaution to have always ready a barge well-manned: he threw himself headlong into it, and caused the boatmen to make for the English sloop, with all possible despatch. The barge, bearing a flag of truce, was still visible from the heights when Washington arrived. The two officers related to him what they had witnessed. Arnold had absconded. His wife, in the agonies of despair, seemed to fear for her infant, and maintained an obstinate silence. No one knew how to explain these extraordinary incidents. The commander-in-chief repaired, without delay, to the fort of West point, where, however, he could learn nothing of a decisive import. But some orders, issued by Arnold the day before, redoubled his suspicions: he returned to the quarters of the general, and at this instant Jameson's messenger presented himself, and delivered the packet with which he was charged. Washington seemed, for a few minutes, as it were overwhelmed by the discovery of a crime which ruined the fame of an American general, and wounded the honor of the American army.

Those who were near him anxiously interrogated his looks in silence, which he broke by saying,—“I thought that an officer of courage and ability, who had often shed his blood for his country, was entitled to confidence, and I gave him mine. I am convinced now, and for the rest of my life, that we should never trust those who are wanting in probity, whatever abilities they may possess. Arnold has betrayed us.”—Meanwhile, the precautions required by the occasion were every where taken. General Heath, a faithful and vigilant officer, was substituted for Arnold at West point; the commanders of the other posts were admonished to be on their guard. Greene, who had been invested with the command of the army during the absence of Washington, recalled within the forts the garrisons which the traitor had dispersed, and marched a strong division near to the lines. Hamilton lost not an instant in repairing to King’s ferry, the last American post on the side of New York. He had the mortification to learn, that a very short time before his arrival, Arnold’s barge had glided by with the swiftness of an arrow, and was then getting along side the Vulture, some miles lower down, opposite Teller’s point,—an anchorage situated at the head of the great basin of the Hudson, which is called, *Tappan bay*. Livingston had remarked the barge that carried the fugitive, and, his suspicions being roused by the strange movements of the two or three days previous, would have stopped it, had not the sailors of his spy-boats been ashore when it passed. Messengers were sent to all the states of the Union, and to the French general, to inform them of this event. The express which bore the news to congress travelled with such rapidity, that he reached Philadelphia on the same day that the discovery was made in the camp. The magistrates were immediately directed to enter the house of Arnold, and to seize and examine his papers. They found nothing there relating to the conspiracy; but he had left memoranda which furnished ample proof that he was guilty of the extortions and peculations of which he had been accused two years before.—Jameson caused his unknown prisoner to be strictly guarded. The latter at first suppressed his true name, from consideration for Arnold; but, the day after his capture, supposing that the American general had had time to make his escape, he said to Jameson,—“My name is not Anderson; I am major André.” The death of André (q. v.),

though ignominious, was happiness in comparison with the life of Arnold. Upon his establishment in the army of Great Britain, he found it necessary to make some exertions to secure the attachment of his new friends. With the hope of alluring many of the discontented to his standard, he published an address to the inhabitants of America, in which he endeavored to justify his conduct. He had encountered the dangers of the field, he said, from apprehension that the rights of his country were in danger. He had acquiesced in the declaration of independence, though he thought it precipitate. But the rejection of the overtures made by Great Britain, in 1778, and the French alliance, had opened his eyes to the ambitious views of those who would sacrifice the happiness of their country to their own aggrandizement, and had made him a confirmed loyalist. He artfully mingled assertions, that the principal members of congress held the people in sovereign contempt. This was followed, in about a fortnight, by a proclamation, addressed “to the officers and soldiers of the continental army, who have the real interest of their country at heart, and who are determined to be no longer the tools and dupes of congress and of France.” To induce the American officers and soldiers to desert the cause which they had embraced, he represented that the corps of cavalry and infantry, which he was authorized to raise, would be upon the same footing with the other troops in the British service; that he should with pleasure advance those whose valor he had witnessed; and that the private men, who joined him, should receive a bounty of three guineas each, besides payment at the full value for horses, arms, and accoutrements. His object was the peace, liberty and safety of America. These proclamations did not produce the effect designed, and in all the hardships, sufferings and irritations of the war, Arnold remains the solitary instance of an American officer who abandoned the side first embraced in the contest, and turned his sword upon his former companions in arms. He was soon despatched, by sir Henry Clinton, to make a diversion in Virginia. With about 1700 men, he arrived in the Chesapeake in January, 1781, and, being supported by such a naval force as was suited to the nature of the service, he committed extensive ravages on the rivers, and along the unprotected coasts. It is said, that, while on this expedition, Arnold inquired of an American

captain, whom he had taken prisoner, what the Americans would do with him, if he should fall into their hands. The officer replied, that they would cut off his lame leg, and bury it with the honors of war, and hang the remainder of his body in gibbets.—After his recall from Virginia, he conducted an expedition against New London in his native state of Connecticut. He took fort Trumbull, Sept. 6, with inconsiderable loss. On the other side of the harbor, lieutenant-colonel Eayre, who commanded another detachment, made an assault on fort Griswold, and, with the greatest difficulty, entered the works. An officer of the conquering troops asked who commanded. "I did," answered colonel Ledyard, "but you do now," and presented him his sword, which was immediately plunged into his own bosom. A merciless slaughter now commenced of the brave garrison, who had ceased to resist, and the greater part were either killed or wounded. After burning the town, and the stores which were in it, Arnold returned to New York in eight days.—He survived the war but to drag on, in perpetual banishment from his native country, a dishonorable life amid a nation that imputed to him the loss of one of the brightest ornaments of its army—the lamented André. He transmitted to his children a name of hateful celebrity. He obtained only a part of the debasing stipend of an abortive treason. His complaints soon caused it to be known, that all the promises by which he had been inveigled were not fulfilled. But baffled treason appears always to be overpaid, and the felon is the only one who thinks that he experiences injustice. He enjoyed, however, the rank of brigadier-general; but the officers of the British army manifested a strong repugnance to serve with him. He possessed their esteem while he fought against them; they loaded him with contempt when treason brought him over to their side. He resided principally in England after the conclusion of the war, was in Nova Scotia, and afterwards in the West Indies, where he was taken prisoner by the French, from whom he escaped, and, returning to England, died in Gloucester place, London, June 14, 1801.

ARNOLD, Christopher; a peasant of Sommerfeld, near Leipsic, celebrated as an astronomer. He was born in this village in 1646, died in 1695, and accomplished so much by his own exertions, that he corresponded with the most celebrated literati of his age, whose original

letters are preserved at Leipsic, in the library of the council, where may also be seen A.'s picture. He erected an observatory at his dwelling-house, which preserved the memory of this remarkable man till 1794, when it was pulled down, on account of its decay. Unwearied in his observations, he discovered many phenomena sooner than other astronomers; as, for instance, the two comets of 1683 and 1686, to which he directed the attention of the astronomers of Leipsic. He acquired yet more celebrity by his observation of the transit of Mercury, in 1690. The magistracy of Leipsic made him, on this occasion, a present of money, and remitted his taxes for life. A.'s observations were so accurate, that they were received by a learned periodical journal that appeared at that time—the *Acta Eruditorum*. (q. v.) A. himself published Signs of divine Grace exhibited in a solar Miracle, in 1692, 4to., with plates. In the churchyard at Sommerfeld is the monument of this astronomical peasant, by whose name the celebrated astronomer Schröter distinguished three valleys in the moon.

ARNOLD, John; a miller, known by a law-suit in which he was engaged during the reign of Frederic II (the Great), king of Prussia. The king believed that the miller had suffered great injustice by a decision in favor of his territorial lord, and deposed the minister of justice, and several other officers, on their refusal to change the judgment. He then undertook the office of judge himself, and reversed the sentence. By this act, one of the best monarchs was made to resemble one of the worst, Ferdinand VII, who reversed, in a similar way, the judgment in the case of Arguelles. The case became notorious throughout Europe, and added to the fame of Frederic as a general that of a lover of justice. It afterwards, however, became evident that the monarch had been seduced into injustice by his zeal for equity; and those of the judges who had been imprisoned were set at liberty. This case affords an instance of the danger to which the cause of justice is exposed under an arbitrary government, even when the sovereign is well disposed. The memoirs of Nettelbeck, captain of a Prussian vessel, exhibit a proof of the general admiration excited by this act of supposed justice. Nettelbeck came to Lisbon, and, when the people learned that he was a Prussian, a mob assembled, and accompanied him, for a long time, with loud shouts. The same

man was afterwards captured by the Algerines; but, when the dey learned that he was a subject of the *great king*, he set him immediately at liberty, to show his respect for Frederic.

ARNOLD, Samuel, doctor, a distinguished composer, born in 1739 or 1740, received his musical education in the chapel royal, in London. In his 23d year, he was the author of a dramatic composition, and was afterwards appointed a composer at the Covent garden theatre. Here he set to music the *Maid of the Mill*. He distinguished himself still more by his oratorios of the *Cure of Saul* (poetry by Brown) and *Abimelech*. To these succeeded the oratorios of the *Prodigal Son* and the *Resurrection*, of which the former, in particular, is highly distinguished. He composed, also, many vocal and instrumental pieces for the garden concerts. He was made doctor of music at Oxford, and, in 1783, organist of the royal chapel. He prepared an edition of all the works of Handel, in 36 vols., folio. In 1789, he was made director of the academy of ancient music; 4 years afterwards, organist at Westminster abbey, and, in 1796, conductor of the annual performances in the church of St. Paul, for the benefit of the sons of clergymen. In 1798, he composed his oratorio of *Elijah*, or the *Shunamite Woman*, in which *Madame Marasang*. He died in 1802, and was buried on the northern side of the choir of Westminster abbey. Various as were his compositions, his inventive talent was but limited.

ARNOLDISTS. (See *Arnold of Brescia*.)

ARNOULT, Sophie; a Parisian actress, famed in the annals of gallantry and wit, born at Paris, Feb. 14, 1740. Her father kept a *hôtel garni*, and gave her a good education. Nature endowed this favorite of the Parisian public with sprightly wit, a tender heart, a charming voice, and the most beautiful eyes. Chance brought her upon the stage, where she delighted the public from Dec. 15, 1757 to 1778. The princess of Modena happened to be in retirement at the *Val de Grâce*. It was the custom, at that time, for ladies of rank to confess, in Passion week, the sins committed during Lent. The princess was struck with a very fine voice, that sang at the evening mass. The songstress was Sophie Arnoult. The superintendent of the royal choir was informed by the princess of the discovery which she had made, and, against her mother's will, Sophie was obliged to join the choir, where madame de Pompadour heard her sing, and ex-

claimed sentimentally, "Such talents are enough to make a princess." This paved the way for Sophie to the Parisian opera, where she soon became queen, and shone particularly as *Thealire* in *Castor and Pollux*, as *Ephise* in *Dardanus*, as *Iphigenia* in *Iphigenia in Aulis*. By her beauty, her exquisite performance and her vivacity, she enchanted every one. All persons of rank and all the literati sought her society: among the latter were d'Alembert, Diderot, Helvétius, Mably, Duclos and Rousseau. She was compared to *Ninon de l'Enclos* and *Aspasia*; she was sung by Dorat, Bernard, Rhulieres, Marmontel and Favart. Her wit was so successful at the time, that her *bons mots* were collected. It was sometimes severe, when she wished to make her superiority felt, and yet she had no enemies. When she saw Sully and Choiseul's images on a small box, in the time of the revolution, she ridiculed the circumstance with the words, "*C'est la recette et la dépense*." When, in 1802, the priest of St. Germain l'Auxerrois gave her the extreme unction, she suddenly said to him, "*Je suis comme Magdeleine, beaucoup de péchés me seront remis, car j'ai beaucoup aimé*." She died in 1802, in the very chamber in which the admiral Coligny was murdered; and in the same year with her, the actresses *Clairon* and *Dumesnil*. In the beginning of the revolution, she bought the parsonage-house at *Luzarche*, and transformed it into a country house, with this inscription over the door—*Ite missa est*. Her third son, Constant Dioville de Brancas, colonel of cuirassiers, was killed at the battle of *Wagram*.

AROA, or AROBE (by some spelled and pronounced *arrobe*; in Spanish, *arroba*; in the dialect of Peru, *arrou*). 1. A weight used in Spain, Portugal, Goa, Brazil, and in all Spanish America. The weight of these *arobas* differs much. The *aroba* of Madrid, and almost all over Spain, weighs 25 pounds avoirdupois.—2. A measure for wine, brandy and honey: 1 = 8 *azumbras*, = 32 *quartillos*, = 805.5 *arobas menores*, used for measuring oil, = 626.8 cubic inches of Paris measure. At *Malaga*, the *aroba* is equal to 794 cubic inches, Paris measure.

ARPINO, Josephino d'; born 1560, at Rome. The precocity of his talent for painting caused him to be employed, at a very early age, in ornamenting the Vatican, as assistant to the artists engaged in that design; when, luckily attracting the attention of pope Gregory XIII, that pontiff took him under his protection, and gave

him every opportunity to improve himself. In France, to which he went with cardinal Aldobrandini, he was knighted. His death took place at Rome, 1640.

ARRACAN, or **RAKHANG**; a large province in the empire of Burmah or Ava, extending along the eastern side of the bay of Bengal. The Anoupectoumiou mountains bound it to the east. A. is about 500 miles long, but its breadth, in many places, does not exceed 10, nowhere 100, miles. The sea-coast of A. is studded with islands and clusters of rocks. The country is very fertile, but much oppressed by the Burmans. The name of the capital is also *Arracan*. Lon. 93° 6' E.; lat. 20° 47' N.

ARRAGON, the realm of, constituted, formerly, the second chief division of Spain, and was composed of the kingdoms of Arragon, Valencia and Mallorca, and the principality of Catalonia. Down to the time of the marriage of king Ferdinand the Catholic with Isabella, heiress of Castile, A. formed a kingdom separate from Castile, and comprised not only the 4 countries above named, but also Sicily and Sardinia. After the death of Ferdinand, in 1516, it was united forever with Castile; but the Arragonian provinces retained their privileges, liberties and laws, which they lost, almost entirely, after the Spanish war of succession, because they had attached themselves firmly to Austria; and the Bourbons, on ascending the throne, could not forgive the fidelity of the subjects of an enemy. The present province of A. still preserves the title of a *kingdom*. It is bounded N. by the Pyrenees, N. W. by Navarre, W. by Castile, S. by Valencia, and E. by Catalonia. It contains 70 towns, only 8 of which are considerable, viz., Saragossa, Albarazin, Balbastro, Calataiud, Darocca, Jaca, Tarazona and Teruel. Pop., in 1800, 658,630; square miles, 15,503. A part of the country is mountainous, and the soil generally productive, but, in some parts, stony or sandy. The characteristics of the inhabitants are industry, activity, national pride and courage.

ARRAIGN, **ARRAIGNMENT**. To arraign, is to call the prisoner to the bar of the court, to answer the matter charged upon him in the indictment. It is from the Latin *ad rationem ponere*; in French, *ad reson*, or *a resn*. (See Blackstone's *Com.* v. 4, p. 322 and note.)

ARRAN (the ancient *Brandinos*); an island on the W. coast of Scotland, in the Frith of Clyde, of an oval form, 20 miles in length, and, where broadest, 12 wide,

containing several villages; pop., 6754; square miles, 165. The centre of the island is mountainous, on a part of which, called *Goatfield*, exceedingly steep, have been found topazes, and pebbles capable of receiving a polish. The summit of Goatfield is 2865 feet above the level of the sea. There are several lochs and rivers where salmon are caught, and many sorts of fish abound on the coasts. The inhabitants are employed in raising cattle, sheep and goats. The climate is severe, but healthy. Lon. 5° 4' W.; lat. 55° 27' N.

ARRAN ISLANDS, or **SOUTH ARRAN ISLANDS**; 3 islands near the western coast of Ireland, in the Atlantic, at the mouth of Galway bay, extending about 10 miles in length, from N. W. to S. E. Lon. 9° 30' to 9° 42' W.; lat. 53° 2' to 53° 8' N.

ARRAS, capital of the department Pas de Calais, on the navigable river Scarpe, contains 20,000 inhabitants, an academy of the fine arts, and many manufactories of tapestry, battiste, laces, &c. A. is the seat of a bishop. The fortifications consist of an irregular wall, guarded by 10 partly detached bastions, several ravelins and lunettes, two horn-works, and a citadel, which forms a regular pentagon, with casemates, bomb-proof. These fortifications were improved or laid out by Vauban. Here he first employed his tenailions. The *citè*, or old town, is separated from the *ville*, or new town, by a wall and ditch. In 1640, the French, under the marshals Chaume, Chatillon and Melleraye conquered A. In 1654, the Spaniards, under Condé, attempted to regain it from them; but Turenne attacked the Spanish lines, took them by storm, and rescued the fortress.

ARREST (from the French *arrêter*, to stop) is the apprehending or restraining one's person, which, in civil cases, can take place legally only by process in execution of the command of some court or officers of justice; but, in criminal cases, any man may arrest without warrant or precept. Some persons are privileged from arrest—ambassadors and their domestic servants, officers of courts of justice, witnesses, and all other persons necessarily attending any court of record upon business, members of the legislature, and, in England, peers and bishops likewise.

ARRHIDÆUS, or **ARIDÆUS**; son of Philip of Macedon and the dancer Philina, consequently a half-brother of Alexander, whom he also nominally succeeded in the government. When he was deprived of his reason by poison administered by

Olympias, Perdiccas, and, after him, Antipater, governed in his place. After a nominal reign of $6\frac{1}{2}$ years, he was put to death, with his wife, Eurydice, by Olympias.

ARRIA; the heroic wife of Cæcina Pætus, who, being suspected of a conspiracy against the emperor Claudius, was ordered to destroy himself. Perceiving him hesitate, she plunged a dagger into her breast, and presented it to her husband with these words: "*Pate, non dolet*" (Pætus, it is not painful).

ARRIAN, a Greek historian, native of Nicomedia, flourished in the 2d century, under the emperors Adrian and the Antonines. He was first a priest of Ceres; but, at Rome, he became a disciple of Epictetus. He was honored with the citizenship of Rome, and appointed prefect of Cappadocia by the emperor Adrian, who patronised him on account of his learning. In this capacity, he distinguished himself in the war against the Massagetæ, and was afterwards advanced to the senatorial, and even consular dignities. Like Xenophon, he united the literary with the military character. No less than seven of the epistles of Pliny the younger are addressed to A. His historical writings are numerous; but of these, with the exception of some fragments in Photius, only 2 remain. The first is composed of 7 books on the expedition of Alexander, which, being principally compiled from the memoirs of Ptolemy Lagus and Aristobulus, who both served under that king, are deemed proportionably valuable. To this work is added a book on the affairs of India, which pursues the history of Alexander, but is not deemed of equal authority with the former. An epistle from A. to Adrian is also extant, entitled, *Periplus Ponti Eurini*, probably written while he was prefect of Cappadocia. There are, besides, under the name of A., a Treatise on Tactics; a Periplus of the Red Sea, of which the authority is doubtful; and his Enchiridion, an excellent moral treatise, containing the discourses of Epictetus. The best editions of A. are that of Gronovius, Greek and Latin, 1704, folio; of Raphelius, Greek and Latin, Amsterdam, 1750, 8vo.; and of Schneider, Leipsic, 1798. Of his Enchiridion, the most valuable edition is that of Upton, London, 2 vols., 4to., 1739. The Expedition of Alexander has been translated into English by Rooke, in 2 vols., 8vo., London, 1729.

ARRIGHI, duke of Padua; one of those who were banished from France, by the

royal decree of July 24, 1815. He was a native of Corsica, and related to the family of Bonaparte. He distinguished himself as colonel at Austerlitz and Wagram, and, after 1812, as general of division in many battles; e. g., at Leipsic, in 1813, and at the defence of the pass of Nogent, in 1814. After the return of Napoleon from Elba, 1815, he was sent to Corsica, as commissioner extraordinary, to restore every thing to its former condition, and received the dignity of peer. He was one of the most devoted partisans of the emperor, and executed his severe commands in the harshest manner. In the beginning of the campaign of 1813, he declared Leipsic in a state of siege, and compelled all the citizens to arm themselves—a measure as useless as it was burdensome. Fournier's attack on the corps of Lützow, at Kitzén, June 17, 1813, was also the work of A. He lived in Lombardy until recalled from exile by the ordinance of Nov. 19, 1820.

ARROBA. (See *Aroba*.)

ARROWROOT is a kind of starch manufactured from the roots of a plant, the *maranta arundinacea*, which is cultivated in gardens both in the East and West Indies. It is about 2 feet in height; has broad, pointed, and somewhat hairy leaves; bears small, white flowers in clusters, and globular fruit of the size of currants. The starch or powder of the arrowroot is obtained by the following process:—The roots are dug when a year old, and well washed, and beaten in deep wooden mortars till they are reduced to a milky pulp. This is well washed again in clear water, and the fibrous parts, which are found among it, are carefully separated, and thrown away. It is next passed through a sieve or coarse cloth, and suffered to stand for some time, till the starch has settled to the bottom. The water is then drawn off, and the white residue is again washed; after which the water is entirely drained off, and the pulp, when dried in the sun, is found to be an extremely pure starch, which, when reduced to powder, is the *arrowroot* of commerce. There is no vegetable, if we except, perhaps, the salep or orchis root, which yields so large a proportion of nutritious mucilage as this. As an article of diet for children and invalids, it is invaluable, more especially in all forms of bowel complaints. Owing to the great demand for it, it has been much adulterated, and care is required in the selection of it. The purest is the Jamaica or Bermuda arrowroot. A very cheap and tol-

erable substitute for this article may be found in the starch obtained from the potato (see *Potato*), which cannot be too highly recommended.

ARROWSMITH, Aaron; hydrographer to the king of Great Britain, distinguished as a constructor of maps and charts. He published a *New General Atlas*, 4to., 1817, to accompany the *Edinburgh Gazetteer*. He has also published a great number of maps and charts.

ARSCHEIN (of *Turkish* origin); a Russian measure of length. 3 arschins make 7 English feet; 1500 arschins, 1 werst. Every arschin is divided into 4 parts, called *quarters* or *spans*, and every quarter into 4 *werschecks*, = $315\frac{1}{3}$ Paris lines.—It is also a Chinese measure. 1 Chinese arschin = 302 Paris lines.

ARSENIC is a metal of very common occurrence, being found in combination with nearly all of the metals in their native ores. It is of a bluish-white color, readily becoming tarnished on exposure to air, first changing to yellow, and finally to black. In hardness, it equals copper, is extremely brittle, and is the most volatile of all metals, beginning to sublime before it melts. Its specific gravity is 5.736. It burns with a blue flame and a white smoke, emitting a strong smell of garlic. It commonly bears the name of *black arsenic*, and is prepared from the white arsenic of commerce, by heating this substance with carbonaceous matter, and allowing the volatile arsenic to condense in an adjoining vessel. Arsenical pyrites, a very abundant natural substance, is also advantageously used in the preparation of arsenic, in which case iron filings and lime are added, to engage the sulphur, and prevent its sublimation along with the arsenic. Native arsenic has been found in the veins of primitive rocks in several countries, but in small quantities, and generally alloyed by the presence of iron, silver or gold. This metal is used in metallic combinations, when a white color is desired. With oxygen, arsenic forms two compounds, both of which, from their property of combining with alkaline and earthy bases, are called *acids*. The arsenous acid, the most important of the two, is the *white arsenic* of the shops. It is usually seen in white, glassy, translucent masses, to which form it is reduced by fusion from a powdery state. It is one of the most virulent poisons known, not only when taken into the stomach, but when applied to a wound, or even when its vapor is inspired. It is found native in small quantities, but is

obtained for use from the roasting of several ores, particularly from that of cobalt and arsenical pyrites. The arsenous acid is condensed in long, horizontal chimneys, leading from the furnaces where these operations are conducted, and usually requires a second sublimation, with the addition of a little potash, to deprive it of any sulphur it may contain. Its manufacture has been chiefly confined to Bohemia and Hungary. Persons brought up from their youth in the works live not longer than to the age of 30 or 35 years. Knowing the deleterious nature of their occupation, they are so careless, that we have seen them cleaning their plates &c. in wells, over which a skull was painted, to warn every body that the water contained arsenic. Besides its use in medicine, and as a ratsbane, it is much employed as a cheap and powerful flux for glass; but, when too much is added, it is apt to render the glass opaque, and unsafe for domestic use. Arsenite of potash, mingled with sulphate of copper, affords an apple-green precipitate, called *Scheele's green*, which, when dried and levigated, forms a beautiful pigment. With sulphur, arsenic forms likewise 2 definite compounds—the realgar and orpiment. The former of these contains the smallest proportion of sulphur, and is red; the latter is yellow. They are both found native in many countries, but their supply in commerce depends upon their artificial manufacture. This is done by distilling a mixture of arsenical pyrites and iron pyrites, or of white arsenic and rough brimstone. Realgar or orpiment is obtained as the proportion of sulphur employed is greater or less. These compounds afford valuable pigments to the painter.

ARSHIN. (See *Arschin*.)

ARSINOË; the sister and wife of Ptolemy Philadelphus, worshipped, after her death, under the name of *Venus Zephyritis*.—A daughter of Ptolemy Lagus, who married Lysimachus, king of Macedonia. After her husband's death, Ceraunus, her own brother, married her, and ascended the throne of Macedonia. He previously murdered Lysimachus and Philip, the sons of A. by Lysimachus, in their mother's arms. A. was, some time after, banished into Samothrace.—A younger daughter of Ptolemy Auletes, sister to Cleopatra. Antony despatched her to gain the good graces of her sister.—The wife of a king of Cyrene, who committed adultery with her son-in-law.—A daughter of Lysimachus.

ARSINOË; the ancient name of several

places in Egypt and other countries.—1. A town of Egypt not far from the modern Suez.—2. A town of Egypt, W. of the Nile, above Memphis, and N. of Ptolemais. It was called the *city of the crocodiles*, because the animal was worshipped there, and reared by the inhabitants in the neighboring lakes. It is now called *Faioum*.—3. A port of the Red sea, near its entrance, sometimes called *Berenice*.—4. On the Red sea, farther N.—5. In Africa, in the Cyrenaica, between Leptis and Ptolemais.—6. In Coelosyria.—7. In Syria.—8. In Cilicia.—9. In Ætolia, near Canopia.—10. A name of the city of Ephesus.—11. In Cyprus, between old and new Paphos.—12. On the northern coast of Cyprus, near the promontory of Acanas.—13. On the eastern coast of the same island, near Salamis.—14. An inland town, also, of Cyprus.

ARSIS. (See *Rhythm*.)

ARSON, in law; the act of wilfully setting fire to a house, or other property, belonging to others. This crime, by the law of England, is punishable with death. If a man sets fire to his own house, the act is punishable by fine, imprisonment, or setting in the pillory. In the U. States of America, there is some difference in the degree of punishment provided by the laws of the different states. In Massachusetts, setting fire to a dwelling-house, in the night time, is punishable with death; in the day time, with hard labor for life. For burning buildings not dwelling-houses, the punishment, though severe, is milder. In New Hampshire, the law is very similar. In New York, setting fire to an inhabited dwelling-house is punishable with death; to an uninhabited building, with imprisonment. In Kentucky, arson is punishable with imprisonment in the penitentiary. In all the states, it is treated, of course, as an offence of the blackest character.

ART. (See *Arts*.)—ART, schools of. (See *Painting, Sculpture, &c.*)

ARTA, or LARTA; a gulf, river and town of European Turkey, in Albania. The town is situated on the river of the same name, about 20 miles N. E. of Prevesa, and about 360 W. N. W. of Constantinople. The number of inhabitants amounted to 6000, before the late revolution. Lon. 21° 8' E.; lat. 39° 30' N. In 1822, a battle was here fought, between the Greeks and Turks, in which the former abandoned the Philhellenes, who, almost without exception, were killed.

ARTAXERXES; the name of several Persian kings.—1. Artaxerxes, surnamed

Longimanus, on account of his long arms, the second son of Xerxes, escaped from Artabanus and the other conspirators, who had murdered his father, and elder brother Darius; and, 464 B. C., ascended the throne. He subjected the rebellious Egyptians, terminated the war with Athens, by granting freedom to the Greek cities of Asia, governed his subjects in peace, and died B. C. 425. He was favorable to the Jews, and is thought to be the Ahasuerus of scripture.—2. Artaxerxes, surnamed *Mnemon*, from his strong memory, followed his father Darius II, in the year 405 B. C. After having vanquished his brother Cyrus (q. v.), he made war on the Spartans, who had assisted his enemy, and forced them to abandon the Greek cities and islands of Asia to the Persians. He favored the Athenians, and endeavored to foment dissensions among the Greeks. He was killed, in 361, by his son Ochus, who succeeded him under the name of—3. *Artaxerxes Ochus*. After having subjected the Phœnicians and Egyptians, and displayed great cruelty in both countries (in Egypt, he had Apis slaughtered, and served up at his table), he was poisoned by his general Bagoas, who threw his body to the cats, and had sabre-handles made of his bones.

ARTEMIDORUS, called the *Daldian*, from the birth-place of his mother, a small city of Lydia, was a Greek writer at Ephesus, in the 2d century after Christ. He occupied himself, principally, with the interpretation of dreams. We still have two of his writings on this subject, which are particularly deserving of the notice of philologists, on account of the information they contain relative to ancient rites and customs. The latest critical edition is that of Reiff, Leipsic, 1805.

ARTEMIS. (See *Diana*.)

ARTEMISIA; queen of Caria, sister and wife of Mausolus, whose death she lamented in the most tender manner, and to whom she erected, in her capital, Halicarnassus, a monument, which was reckoned among the seven wonders of the world. The principal architects of Greece labored on it. Bryaxis, Scopas, Leochares and Timotheus made the decorations on the four sides of the edifice; Pythes, the chariot drawn by four horses, which adorned the conical top. Vitruvius thought that Praxiteles was also employed on it. After the death of A., the artists finished it without any compensation, that they might not be deprived of the honor of their labor. It was an oblong square, 411 feet in compass, and 130 feet high. The prin-

cipal side was adorned with 36 columns, and 24 steps led to the entrance. A. died, soon after her husband, in the monument which she had erected to him, 351 B. C.—Another A., queen of Halicarnassus, accompanied Xerxes on his expedition against Greece, and distinguished herself, in the battle of Salamis (480 B. C.), by her determined boldness.

ARTEMISIUM, in ancient geography; a promontory of Eubœa, on the northern side of the island, which is famous for the great naval victory, gained in its neighborhood, by the Grecians, over Xerxes.

ARTEMON; a heretical teacher, of the 3d century, who denied the divinity of Christ, and declared him to be a mere man, of rare virtue. He lived in the diocese of Rome. His adherents, the Artemonites, seem to have spread, also, to Syria. In the latter half of the 3d century, they were confounded with other opponents to the doctrine of the Trinity. (See *Antitrinitarians*.) Samuel Crell appeared, in 1726, under the name *Artemonius*, as an antagonist of the same doctrine.

ARTERY. (See *Blood-vessel*.)

ARTHRITIS (from *ἄρθρον*, a joint); any distemper that affects the joints, but the gout particularly. (See *Gout*.)—*Arthritis planetica*, *arthritis vaga*, the wandering gout.

ARTHUR, or ARTUS; prince of the Silures, in the 6th century; an ancient British hero, whose story has been the theme of much romantic fiction. He was, says Geoffrey of Monmouth, who probably followed the chronicle *Brut d'Angleterre*, the fruit of an adulterous connexion between the princess Igerna, of Cornwall, and Uther, the pendragon or chief commander of the Britons. He was born about 501. In 516, he succeeded his father in the office of general, and performed those heroic deeds against the Saxons, Scots and Picts, which have made him so celebrated. He married the celebrated Guenever, or Ginevra, belonging to the family of the dukes of Cornwall; established the famous order of the round table; and reigned, surrounded by a splendid court, 12 years, in peace. After this, as the poets relate, he conquered Denmark, Norway and France, slew the giants of Spain, and went to Rome. From thence he is said to have hastened home, on account of the faithlessness of his wife, and Modred, his nephew, who carried on an adulterous intercourse, and stirred up his subjects to rebellion; to have subdued the rebels,

but to have died, in consequence of his wounds, in 542, on the island of Avalon, where it is pretended that his grave was found, in the reign of Henry II. Hume thinks that the story of Arthur has some foundation in fact.

ARTHUR'S SEAT; a high hill in the neighborhood of Edinburgh, said to have been so denominated from a tradition that king Arthur surveyed the country from its summit, and defeated the Saxons in its neighborhood. The highest point is nearly 700 feet from the base. From hence may be seen the German ocean, the whole course of the Forth, the distant Grampians, a large portion of the most populous and best cultivated part of Scotland, including the picturesque city of Edinburgh and its castle. The view is a most beautiful one.

ARTICHOKE. The artichoke (*cynara scolymus*) is a well-known plant, which is cultivated in Europe chiefly for culinary purposes. This plant was cultivated in England as early as the year 1580. The parts that are eaten are the receptacle of the flower, which is called the *bottom*, and a fleshy substance on the scales of the calyx. The choke consists of the unopened florets and the bristles that separate them from each other. These stand upon the receptacle, and must be cleared away before the bottom can be eaten. Its name undoubtedly arose from a notion, that any one, unlucky enough to get it into his throat, must certainly be choked.—In England, artichokes are generally boiled plain, and eaten with melted butter and pepper, and are considered both wholesome and nutritious. The bottoms are sometimes stewed, boiled in milk, or added to ragouts, French pies and other highly-seasoned dishes. For winter use, they may be slowly dried in an oven, and kept in paper bags, in a dry place. On the continent, artichokes are frequently eaten raw with salt and pepper. By the country people of France, the flowers of the artichoke are sometimes used to coagulate milk, for the purpose of making cheese. The leaves and stalks contain a bitter juice, which, mixed with an equal portion of white wine, has been successfully employed in the cure of dropsy, when other remedies have failed. The juice, prepared with bismuth, imparts a permanent gold color to wool.—The Jerusalem artichoke is a somewhat potato-shaped root, produced by a species of sun-flower (*helianthus tuberosus*), which grows wild in several parts of South America. This plant bears single stalks,

which are frequently 8 or 9 feet high, and yellow flowers, much smaller than those of the common species. So extremely productive are these valuable roots, that between 70 and 80 tons weight of them are said to have been obtained, in one season, from a single acre of ground. They succeed in almost every soil; and, when once planted, will continue to flourish in the same place, without requiring much manure, or much attention to their culture. The season in which they are dug up for use, is from about the middle of September till November, when they are in the greatest perfection. After that, they may be preserved in sand, or under cover, for the winter. The roots are generally eaten plainly boiled, but they are sometimes served at table with fricassee-sauce, and in other ways. Their flavor is so nearly like that of the common artichoke, that it is difficult to distinguish one from the other. We are informed that Jerusalem artichokes are a valuable food for hogs and store pigs; and that, if washed, cut, and ground in a mill similar to an apple-mill, they may also be given to horses.

ARTICLE OF FAITH is a point of Christian doctrine established by the church. The thirty-nine articles of the church of England were founded, for the most part, upon a body of articles compiled and published in the reign of Edw. VI. They were first passed in the convocation, and confirmed by royal authority in 1562. They were ratified anew in 1571, and again by Charles I. To these the law requires the subscription of all persons ordained to be deacons or priests (13 Eliz. cap. 12); of all clergymen, inducted to any ecclesiastical living (by the same statute), and of licensed lecturers and curates (13 Eliz. cap. 12 and 13, and 14 Ch. II, cap. 4); of the heads of colleges, of chancellors, officials and commissaries, and of schoolmasters. By statute Wm. III, cap. 10, dissenting teachers are to subscribe to all except the 34th, 35th and 36th, and part of the 20th; and, in the case of Anabaptists, except, also, part of the 27th. By the 19th Geo. III, cap. 44, however, dissenting preachers need only profess, in writing, to be Christians and Protestants, and that they believe the Scriptures to be the revealed will of God; and school-masters need neither sign the articles nor such professions.

ARTIGAS, J.; a native of Monte Video, and a captain in the royal service at the opening of the revolution on the río de la Plata. In 1811, he applied to the junta

of Buenos Ayres for assistance, in arms and ammunition, to enable him to revolutionize the Banda Oriental, then governed by the Spanish captain-general Elio. The junta sent an auxiliary force, under Rondeau, to aid him; and they gained a signal victory over the royalists, at Las Piedras, in May, 1811, upon which they immediately laid siege to Monte Video. The siege was suspended, by agreement, in November, but afterwards resumed by A., in conjunction with several successive generals from Buenos Ayres, until the garrison capitulated to A. and Alvear, in 1814. Meanwhile, A. had been gradually extending his influence, and assuming rank as chief of the Banda Oriental. Rondeau, in the name of the junta, assembled a convention of the people of this district, for the purpose of choosing deputies to a general congress, and appointing a governor. A. demanded that the electors should receive directions from him; but, the latter proceeding in opposition to his demand, a breach ensued. He declared the convention illegal, and its doings void, and succeeded in persuading nearly all the troops from the Banda Oriental to support him, and to leave the Buenos Ayrean army. In consequence of this, the director, Posadas, declared A. a traitor and an outlaw, and set a price upon his head. This precipitate measure served to widen the breach between A. and the government of Buenos Ayres, and greatly strengthened his power in the Banda Oriental. He claimed that possession of Monte Video should be given to him as political chief; and, having attacked and defeated colonel Soler, who had been appointed governor of the city, he entered it in triumph, and thus held complete control over the whole Banda Oriental. Extending his views farther, he marched, in 1815, against the province of Santa Fe, which declared in his favor. General Viana and colonel Alvarez being sent against him by the existing director, Alvear, with a body of 2000 men, Alvarez united with A., and arrested Viana, being actuated by dislike of the director, Alvear, whose administration was unpopular. Attempts were afterwards made against A. without success, and, at length, in 1816, Pueyrredon being placed at the head of the government, conciliatory measures were resorted to, with as little success, to induce him to listen to terms of accommodation, in consequence of a threatened invasion of the Banda Oriental by the Portuguese. A treaty was, at that time, concluded by

commissioners appointed on the part of Pueyrredon and of A.; but the people of the Banda Oriental refused to ratify it, instigated, it was said, by A. himself. A. continued to maintain his independence. In Dec. 1816, general Lecor invaded the Banda Oriental with a Portuguese army, which A. could not withstand in the open field. Accordingly, he evacuated Monte Video, which was entered by Lecor, Jan. 19th, 1817, and permanently retained by the government of Brazil. Subsequently, the defeat of La Torre, a general of the Banda Oriental, at Arroyo de los Catalanos, increased the difficulties of this territory. A. was compelled to have recourse to a guerilla warfare, wherein he and Rivera, one of his adherents, were greatly distinguished, and inflicted serious losses upon Lecor. At this period, a large portion of the inhabitants desired a reunion with Buenos Ayres, as the only means of successfully resisting the Portuguese. But the intrigues and influence of A. prevented this, and the time for accommodation passed away. A. even sent an abusive letter to the director, and attacked and defeated a detachment of troops under Montes de Oca, and another under Balcarce, which had been ordered to march into the province of Entre Rios, and to secure Santa Fe against the Portuguese. He continued to wage war against his invaders, with undaunted resolution, without any assistance from the government of Buenos Ayres, which was accused, falsely, no doubt, of secretly aiding the Brazilians, in order to destroy him. But, in 1820, the power of A. was completely broken, he being defeated with the loss of nearly all his army; in consequence of which, Ramirez, the chief of Entre Rios, became his enemy, and compelled him to fly into Paraguay. Of his subsequent fate little is known. (See *Banda Oriental*.)

ARTILLERY signifies all sorts of great guns or cannon, mortars, howitzers, petards, &c., together with all the apparatus and stores thereto belonging, which are taken into the field, and used for besieging and defending fortified places. It signifies also the science of artillery or gunnery (q. v.), which, originally, was not separated from military engineering. The class of arms called *artillery* has always been the subject of scientific calculation, more than any other species, as the Italian word *arte*, in its name, seems to indicate. The same name is also given to the troops by whom these arms are served, the men being, in fact, subsidiary to the

instruments. The other portions of an army are *armed men*, while the artillery consists of *manned arms*. The history, &c., of artillery in the different countries, will be given under the head of *Gunnery*.—*Artillery, park of*, is the place appointed by the general of an army to encamp the train of artillery, with the apparatus, ammunition, &c., as well as the battalion appointed for its service and defence. Strict order and a convenient arrangement for breaking up, &c., are very important in encamping a park of artillery.—*Field artillery* is distinguished from artillery for defence or besieging.—*Flying artillery* consists of light pieces, with accommodations for the artillerists, so that the whole can move quickly in battle. In some armies, the mounted artillery, also, is called *flying artillery*. (See, also, *Amulette*, *Cannon*, &c.)

ARTOIS; a former province of France, anciently one of the 17 provinces of the Netherlands. It was bounded on the S. and W. by Picardy, on the E. by Hainault, and on the N. by Flanders. A. always was accounted very productive. It was 75 miles in length, and 36 in breadth. It is now included in the departments of Pas de Calais, Somme, and Nord. (For comte d'Artois, see *Charles X.*)

ARTOTYRITES (from *ἀρτος*, bread, and *τυρῆς*, cheese); a sect, in the 2d century, in Galatia, which used bread and cheese in the eucharist, because, they said, the first men offered not only the fruits of the earth, but of their flocks too. They admitted females to the priesthood, and even to the dignity of bishops.

ARTS (from the Latin *ars*); in the most general sense of the word, any acquired skill. As the fine arts, in early times, were not distinctly separated from the merely useful arts (nor even from the sciences), and as there is, in fact, much difficulty in drawing the line, in many cases, one word is used, in most languages, for both, and an epithet is necessary to distinguish them; in some languages, however, e. g., the German, they are distinguished by two very different words. The ancients divided the arts into *liberal arts* (*artes liberales, ingenue, bone*) and *servile arts* (*artes serviles*). Under the latter were comprehended the mechanical arts, because they were practised only by slaves. The former ones were such as were thought becoming to freemen. The name *servile arts* was lost as soon as freemen began to practise them, but the name of *liberal arts* was retained. The following

seven were usually called by this name : grammar, dialectics, rhetoric, music, arithmetic, geometry and astronomy, according to the well-known verse,—

Gram. loquitur, *Dia.* verba docet, *Rhe.* verba ministrat,

Mus. canit, *Ar.* numerat, *Ge.* ponderat, *As.* colit astra.

This awkward and illogical division continues in many Catholic schools, where the different classes are arranged according to it. In modern times, we divide arts into *fine* and *useful* or *mechanical* arts, comprising under the former all those, the direct object of which is not utility, as poetry, music, architecture, painting, sculpture, &c. If we speak of the fine arts simply, not in contradistinction to the useful arts, we generally intend only architecture, painting, sculpture and engraving, with their subdivisions. (For the history and description of each of the fine arts, see the respective articles.)—The mechanical arts, as we have said, were practised, among the ancients, by slaves or by women, many things of the first necessity being, of course, manufactured in the house. Refinement, however, in the course of time, made more skill necessary, in some branches of manufacture, than is generally to be expected from women or slaves. Thus we find, in the middle ages, up to the 10th century, besides the slaves or bondsmen, free persons practising the useful arts. From that time, however, it seems that mechanical arts were carried on only by freedmen, or nuns and monks, who worked both for themselves and others. When the cities grew up, and their number and population rapidly increased, one of the immense changes which history shows to have sprung from them, was the elevation of the mechanical arts. It was now esteemed honorable to be a skilful mechanic. In many instances, too, they became blended with the fine arts, and the names of several workmen have been handed down to us, with a reputation akin to that of artists; e. g., Benvenuto Cellini, Peter Fischer. (See *Corporation*.)

ARUNDELIAN MARBLES; a series of ancient sculptured marbles, discovered by William Petty, who explored the ruins of Greece, at the expense of and for Thomas Howard, earl of Arundel, who lived in the time of James and Charles I, and devoted a large portion of his fortune to the collection of monuments illustrative of the arts, and of the history of Greece and Rome. These marbles, named in honor of their purchaser, arrived in England, in the

year 1627, with many statues, busts, sarcophagi, &c. John Selden published some of the inscriptions, which he thought most interesting, under the title of *Marmora Arundeliana*, 4to., London, 1628. It is supposed that not more than half of the original number escaped destruction in the civil wars: they were then in the garden of the earl, in the Strand, in London. Henry Howard, duke of Norfolk, grandson of the collector, presented the remainder to the university of Oxford, where they still remain. The whole collection of inscriptions was published by Humphrey Prideaux, in 1676; by Michael Maltaire, in 1732; by Dr. Chandler, very splendidly, in 1763. These inscriptions are records of treaties, public contracts, thanks of the state to patriotic individuals, &c., and many of a private nature. The most curious and interesting is one usually known by the name of the *Parian Chronicle*, from having been kept in the island of Paros. It is a chronological account of the principal events in Grecian, and particularly in Athenian history, during a period of 1318 years, from the reign of Cecrops, B. C. 1450, to the archonship of Diognetus, B. C. 264. The authenticity of this chronicle has been called in question, but has been vindicated by many of the most learned men.

ARUNS, Tarquinius; the son of Tarquin II, the last king of Rome, who, meeting Brutus in the first battle after the expulsion of the royal family, they mutually killed each other.

ARUSINI CAMPI (*Arusian fields*); plains in Lucania, famous for the last battle between the Romans and Pyrrhus. (q. v.)

ARUSPICES, or **HARUSPICES**; Roman priests and prophets, who foretold events from observing the entrails of sacrificed animals. They observed, too, all the circumstances which accompanied or happened during the sacrifice; e. g., the flame, the mode in which the animal behaved, the smoke. Their origin is to be sought for in Etruria. They were introduced into Rome by Romulus, where they enjoyed their authority till the time of the emperor Constantine, 337 A. D., who prohibited all soothsaying on pain of death. Their number, at this time, was 70; their chief priest was called *summus aruspex*, or *magister publicus*.

As. The Romans used this word in three different ways, viz., to denote; 1, any unit whatever, considered as divisible; 2, the unit of weight, or the pound (*libra*); 3, their most ancient coin. In the

first use of the word, the pound, foot, *jugerum sextarius*, were called *as*, when contradistinguished from their divisions or fractions. In fact, the word was applied to any integer; e. g., inheritances, interest, houses, funds, &c.. Therefore *ex asse heres* signifies to *inherit the whole*. Different names were given to different numbers of *asses*: *dupondius* (*duo pondo*) = 2 *asses*, *sestertius* (*sesqui tertius*, viz., the third half) = 2½ *asses*, *tressis* = 3 *asses*, *quadrussis* = 4 *asses*, and so on to *centassis* = 100 *asses*. The *as*, whatever unit it represented, was divided into 12 parts, or *ounces* (*uncie*), and the different fractions of the *as* received different names, as follows:—

As, 12 ounces.	Quincunx, . . 5 ounces.
Deunx, . . 11 "	Triens, 4 "
Dextans, . . 10 "	Quadrans, or
Dodrans, . . 9 "	teruncius, . 3 "
Bes, or des, . 8 "	Sextans, . . . 2 "
Septunx, . . 7 "	Uncia, 1 ounce.
Semis, . . . 6 "	

Sescuncia was ½ ounce.

1 uncia contained 2 semiuncie,
3 duellæ,
4 sicilici,
6 sextulæ,
24 scrupula (scriptula, or scripula,) 48 oboli,
144 siliquæ.

Scholars are not agreed on the weight of a Roman pound, but it is not far from 327,1873 *grammes*, French measure. Budæus has written 9 books *De Asse et ejus Partibus* (Of the *As* and its Parts). In the most ancient times of Rome, the copper coin, which was called *as*, actually weighed an *as*, or a pound, but, in different periods of the republic and the succeeding empire, this coin was of very different values.

ASAFOETIDA is a resinous gum, procured from the root of a large umbelliferous plant (*ferula assafetida*), which grows in the mountains of some parts of Persia. The leaves of this plant are nearly 2 feet long, doubly-winged, and have the leaflets alternate. The flowers are small, and the seeds oval, flat, and marked with 3 longitudinal lines. No one, who has ever smelt the peculiarly powerful and garlic-like odor of *asafetida*, can well forget it. If exposed to the air, but particularly when heated, it will pervade every apartment of a house. Notwithstanding this, it constitutes a favorite seasoning for food with the inhabitants of many parts of the East. The Indian Banians, who never eat animal food, use it in almost all their dishes, and, before their meals, even rub their mouths with it, in order to stimulate their appetite. It is sometimes used by

our own cooks, but in very minute quantity, in place of garlic. In many parts of Arabia and Persia, *asafetida* is much esteemed as a remedy for various internal diseases, and even as an external application to wounds. With us, it is considered a powerful medicine in several disorders. It has been applied, with success, in the cure of hooping-cough and worms; and in flatulent colics, it has, in many cases, afforded great relief. It is imported in masses of various sizes and forms, and of yellow, brown or bluish color, sometimes interspersed with roundish, white pieces. The plant, from the root of which *asafetida* is produced, grows in the mountains which surround the small town of Disguum, in Persia; and, at the season when it is collected, the whole place smells of it. The upper part of the roots, which are sometimes as thick as a man's leg, rises somewhat above the surface of the ground. The harvest commences when the leaves begin to decay; and the whole gathering is performed, by the inhabitants of the place, in 4 different journeys to the mountains. The demand for the article, in foreign countries, being first ascertained to be sufficient to repay the trouble of collecting it, the persons employed proceed to the mountains in companies of 4 or 5 each. It is stated that a single ship is exclusively devoted to transporting the bulk of this commodity to the ports in the Persian gulf; and that, when smaller parcels are carried, it is usual to tie them to the top of the mast.

ASAPH, St., a native of North Wales, lived under Carentius, king of the Britons, about 590. He wrote the ordinances of his church, and the Life of St. Kentigern, whom he succeeded in the charge of the convent of Llan Elwy. Bayle says he was the first who received unction from the pope.

ASEN; a considerable kingdom in the interior of Africa, between Fezzan and Cashna. The sultan is said, by Horne-mann, to rank next to that of Bornou, among the sovereigns of Interior Africa. The inhabitants of A. are Tuaricks, of the tribe Kolluvi.

ASBESTUS; a mineral substance, presenting much diversity in its structure and color. It occurs in long, parallel, extremely slender and flexible fibres (*amianthus*); in finely-interwoven and closely-matted filaments, forming flat pieces (mountain leather); in fibres interlaced so as to form numerous cells resembling cork (mountain cork); in hard, brittle, slightly-curved fibres (mountain wood); and in

compactly-fibrous masses, harder and heavier than the other varieties (common asbestus). Its most common colors are gray, yellow, green and blue, intermingled with white. It is found in all countries more or less abundantly, and exists, forming veins, in serpentine, mica slate, and primitive lime-stone rocks. Amianthus, the most delicate variety, comes most plentifully from Savoy and Corsica. Its fibrous texture, and the little alteration it undergoes in strong heats, caused it to be used by the eastern nations as an article for the fabrication of cloth, which, when soiled, was purified by throwing it into the fire, from whence it always came out clear and perfectly white; hence it obtained the name of *ἄπλᾱντος*, or *undefiled*. By the Romans, this cloth was purchased at an exorbitant price, for the purpose of wrapping up the bodies of the dead, previously to their being laid upon the funeral pile. The preparation of this cloth is effected by soaking the amianthus in warm water, rubbing it with the fingers, soaking the filaments in oil, when they are mingled with a little cotton, and spun upon the ordinary spindle. When woven into cloth, the fabric is heated red-hot, and the oil and cotton consumed, leaving only a tissue of pure amianthus. Paper may also be formed from this substance, in the way in which common paper is made, except that more size is requisite. A book has even been printed on such paper. (See *Bibliomania*.) Lamp-wicks have also been constructed from amianthus, but they require to be cleaned occasionally from the lamp-black, which accumulates upon them, and prevents the due supply of oil. In Corsica, it is advantageously used in the manufacture of pottery, being reduced to fine filaments, and kneaded up with the clay; the effect of which is to render the vessels less liable to break, from sudden alternations of heat and cold, than common pottery.

ASCANIUS, son of Æneas and Creusa, accompanied his father in his flight from the burning Troy, and went with him to Italy. He was afterwards called *Iulus*. He behaved with great valor in the war between his father and the Latins. He succeeded Æneas in the government of Latium, and built Alba, to which he transferred the seat of his empire from Lavinium. The descendants of A. reigned in Alba for above 420 years, making 14 kings, till the age of Numitor. A. reigned 38 years, and was succeeded by Sylvius Posthumus, son of Æneas by Lavinia. Iulus, the son of A., disputed

the crown with Sylvius; but the Latins gave it to the latter, as he was descended from the family of Latinus, and Iulus was invested with the office of high priest, which remained a long while in his family.

ASCENDANTS, in law, are opposed to *descendants* in succession; i. e., when a father succeeds his son, or an uncle his nephew, &c., the inheritance is said to *ascend*, or to go to *ascendants*. (See *Descent*.)

ASCENDING, in astronomy, is said of such stars as are rising above the horizon in any parallel of the equator; and thus, likewise, *ascending latitude*—the latitude of a planet when going towards the north pole.—*Ascending node* is that point of a planet's orbit, wherein it passes the ecliptic to proceed northward. This is otherwise called the *northern node*.

ASCENSION; an uninhabited island, consisting of naked rocks; a shattered volcano, of about 60 miles in circumference, in the Atlantic ocean; lon. 14° 28' W.; lat. 7° 56' S. It has an excellent harbor, frequented by the East Indians and whale-fishers. Fish, sea-fowl and turtles abound, but there is an entire want of water. The vegetation, scarcely sufficient to support some goats, is confined to an eminence in the south-east. In a crevice of the rock there is the *sea post-office*, as it is called—a place where bottles, closely sealed, are left with letters for passing vessels. This island formerly belonged to the Portuguese, who discovered it in 1501; but, in 1816, some English families from St. Helena settled here, on account of the inconvenience which they experienced from the residence of Napoleon. Ascension was then taken possession of, by the British government, as a military station, and 60 transport ships provided the garrison of 200 men with supplies from the cape of Good Hope. A road was laid out, and a fort was built. In 1821, the government resolved to continue the occupation of this post.

ASCENSION, in astronomy. We understand by the *right ascension* of a star, that degree of the equator, reckoned from the beginning of Aries, which comes to the meridian with the star. By the *right ascension* and declination, the situation of stars in the heavens is determined, as that of places on the earth by longitude and latitude. By *oblique ascension*, we understand that degree of the equator, counted as before, which rises with the star, in an oblique sphere.

ASCENSION DAY; the day on which the ascension of the Savior is commemorated, often called *Holy Thursday*. It is a move-

ble feast, always falling on the Thursday but one before Whitsuntide. (For the Ascension of the Virgin, a feast of the Roman Catholic church, see *Assumption*.) Much has been written on the ascension of Christ, in Germany, by Protestant Biblical critics, of whom we will only mention Semmler and Paulus.—The idea of ascension is common to the mythology of almost every nation.

ASCETICS; a name given, in ancient times, to those Christians who devoted themselves to severe exercises of piety, and strove to distinguish themselves from the world by abstinence from sensual enjoyments, and by voluntary penances. Hence those writings which teach the spiritual exercises of piety, are termed *ascetic* writings. Even before Christ, and in the times of the first Christian church, there were similar ascetics among the Jews (see *Essenes*), also among the philosophers of Greece, and in particular among the Platonics. The expression *ascetic* is borrowed from the Greek word *ἀσκησις* (exercise), used by the ancient Greeks to signify the spare diet of the *athletes*, who, to prepare themselves for their combats, abstained from many indulgences. (For the character of the Christian ascetics, and the religious views by which they were guided, see *Gnostics*, *Saints*, *Monks*.)

ASCHAFFENBURG (the ancient *Asciburgum*, laid out by the Romans); a town in the Bavarian district of the Lower Maine, with 750 houses and 6200 inhabitants, on the Maine and Aschaff. It formerly belonged, with its territory, to the electorate of Mentz. The scenery is so beautiful, and the castle so fine, that Gustavus Adolphus of Sweden, when he took possession of it, in his expedition to the Rhine, wished to transfer it, with its view, to lake Maler, in Sweden. After the dissolution of the electorate of Mentz, in 1811, A. became the summer residence of the prince-primate, afterwards grand duke of Frankfort.

ASCHAM, Roger, was born, in 1515, of a respectable family in Yorkshire. He was entered at Cambridge, 1530, and was chosen fellow in 1534, and tutor in 1537. In this period of religious and literary revolution, A. joined himself with those who were extending the bounds of knowledge. He became a Protestant, and applied himself to the study of Greek, which began, about that time, to be taught in England. There was yet no established lecturer of Greek: the university, therefore, appointed him to read in the open schools. He was not less eminent as a

writer of Latin than as a teacher of Greek. He wrote all the public letters of the university, was afterwards Latin secretary to king Edward, and also to Mary. Cardinal Pole, who was particularly eminent for his skill in Latin, employed him to translate, for the pope, his speech in the English parliament. In 1544, he wrote his "Toxophilus, or Schole of Shooting," in praise of his favorite amusement and exercise—archery. This book he presented to the king, who rewarded him with a pension of 10 pounds. In 1548, the princess Elizabeth invited him to direct her studies; but, after instructing her 2 years, he left her without her consent, and, soon after, went to Germany as secretary to sir R. Morisine. In this journey, he wrote his Report of the Affairs in Germany. Upon the death of Edward, he was recalled, but preserved the office of Latin secretary to Mary, although a Protestant, through the interest of Gardiner. Upon the accession of his pupil, he was continued in his former employment, and was daily admitted to the presence of the queen, to assist her studies, or partake of her diversions, but received no very substantial marks of her bounty. In 1563, he was invited by sir E. Sackville to write the Schoolmaster, a treatise on education, which, though completed, he did not publish. To this work, conceived with vigor and executed with accuracy, he principally owes his modern reputation. His style was, in his own age, mellifluous and eloquent, and is now valuable as a specimen of genuine English. He was never robust, and his death, which happened 1568, was occasioned by his too close application to the composition of a poem, which he intended to present to the queen on the anniversary of her accession.

ASCLEPIADEAN VERSE consists of 2 or 3 choriambuses, and is accordingly distinguished into *greater* and *less*. It always begins with a spondee, and ends with an iambus:

Less.

—|—υ—υ—||—υ—υ—|—υ—υ—|

Greater.

—|—υ—υ—||—υ—υ—|—υ—υ—|—υ—υ—|

Their character is lyric, uniting *grace* with *vigor*. In Horace, there are 5 different metres formed of Asclepiadean verses. He uses either the *greater* or the *less* alone, or alternately with the Glyconic verse; or employs 3 less Asclepiadean verses, followed by a Glyconic, or 2 less Asclepiadean, by a Pherecratian and a Glyconic verse.

ASCLEPIADES, the descendants of the god of medicine, *Æsculapius*, by his sons *Podalirius* and *Machaon*, spread, together with the worship of the god, through Greece and Asia Minor. They formed an order of priests, which preserved the results of the medical experience acquired in the temples as a hereditary secret, and were thus, at the same time, physicians, prophets and priests. They lived in the temple of the god, and, by exciting the imaginations of the sick, prepared them to receive healing dreams and divine apparitions; observed carefully the course of the disease; applied, as it is believed, besides the conjurations and charms usual in antiquity, real magnetic remedies, and noted down the results of their practice. They were, accordingly, not only the first physicians known to us, but, in fact, the founders of scientific medicine, which proceeded from their society. The constitution of this medical family order was, without doubt, derived from Egypt, whence also the *coluber Æsculapii*, Linn., which was used as a healing and prophetic serpent, was brought by the Phœnicians to *Epidaurus*, the chief seat of the god. Round this serpent-god an order of priests was gathered, and thence spread his worship. (In later times, 292 B. C., such a healing serpent was sent to the island of the Tiber, near Rome.) No one could be initiated into the secrets of their knowledge without a solemn oath. At first, this order of priests was confined to the family of the *Asclepiades*, who kept their family register with great care. *Aristides* celebrated them by his eulogiums at *Smyrna*. *Hippocrates* of *Cos*, the founder of scientific physic, derived his origin from it, and the oath administered to the disciples of the order (*jusjurandum Hippocratis*) is preserved in his writings.—An *Asclepiades* from *Prusa*, in *Bithynia*, 20 years B. C., is mentioned as the first practical physician at *Rome*, and as the founder of the methodical school. In the course of time, strangers, also, as *Galen* reports, were initiated into these mysteries and this order.—We find the name of *A.* also in the literature of the Greeks. (See *Dissertations on the Fragments of Asclepiades of Tragi-lus* in the *Actis Philologorum Monacensium*, edited by *Thiersch*, 1st vol., 4th No., p. 490.)

ASELLI, or ASELLIUS, *Caspar*; an Italian anatomist of the 17th century. He was born at *Cremona*, studied medicine, and became professor of anatomy in the university of *Pavia*, where he highly dis-

tinguished himself by discovering the lacteals, a system of vessels, the office of which is to absorb the chyle formed in the intestines, and thus contribute to the support of animal life. *A.* first observed these vessels in dissecting a living dog. His investigations were published after his death at *Milan*, 1627.

ASEN. (See *Mythology*, northern.)

ASHMOLE, *Robert*, a celebrated English antiquary and virtuoso, born at *Lichfield*, in 1617, was sent to *London* at the age of 16, where he studied law and other branches of knowledge, and practised as a chancery solicitor. On the breaking out of the civil wars, he retired to *Oxford*, and entered himself of *Brazen-Nose college*, where he engaged in the study of natural philosophy, mathematics and astronomy. On the ruin of the king's affairs, he returned to *London*, and formed a close intimacy with the celebrated astrologers *Moore*, *Lilly* and *Booker*, but shared only in their absurdity, not in their roguery. He subsequently married lady *Mainwaring*, a rich widow. On this accession of fortune, he gave up his profession, and his house in *London* became a resort of all the proficient and professors in the occult sciences. *A.*, about this time, published, under another name, a treatise on alchemy, by the celebrated doctor *Dee*; and undertook to prepare for the press a complete collection of the manuscript writings of English chemists, under the title of *Theatrum Chymicum Britannicum*. Having for some time attached himself to the study of antiquity and the perusal of records, he began to collect materials for his celebrated *History of the Order of the Garter*. His love for botany having induced him to lodge with the celebrated gardener of *Lambeth*, *John Tradescant*; he obtained the curious collection of rarities got together by that person and his father. On the restoration, *A.* was gratified with the post of *Windsor herald*, and received other appointments, both honorable and lucrative; was admitted a fellow of the royal society, and favored with the diploma of a doctor of physic from the university of *Oxford*. In 1672, he presented to the king his work on the *Order of the Garter*, and, in 1675, resigned his office of *Windsor herald*. An accidental fire in the Temple destroyed a library which he had been upwards of 30 years collecting, with a cabinet of 9000 coins, and other valuable antiquities. In 1683, he presented to the university of *Oxford* his *Tradescantian* collection of rarities, to which he afterwards added his

books and MSS., thereby commencing the *Museum Ashmoleanum* at Oxford. He died in May, 1692, aged 76. He left a number of MSS., several of which have been printed, and a diary of his life.

ASHANTEE; a warlike nation of Negroes, on and near the Gold Coast of Guinea, in the vicinity of the British settlement, Cape Coast castle, at Sierra Leone, with which we have become acquainted by Bowdich's *Mission to Ashantee* (London, 1819), and Jos. Dupuis' *Journal of a Residence in Ashantee* (London, 1824), as well as by their bloody war with the English, in 1824, in which the governor of the above-mentioned British colony, general McCarthy, lost his life. The kingdom of the Ashantees was founded, about 100 years ago, by a successful conqueror, with a kind of feudal constitution. It extends from 6° to 9° N. lat., and from 0° to 4° W. lon. to the river Volta. The residence of the king is Coomassie. The law permits him to have 3333 wives, a mystical number, on which the welfare of the nation rests. His servants, above 100 in number, are slaughtered on his tomb, that he may arrive in the infernal regions with a suite becoming his rank. Several Negro states, under their own princes, are dependent on him. Ashantee itself (14,000 square miles; with 1,000,000 inhabitants) forms a part of Wangara, which contains two other states, Dahomy and the powerful Benin, whose king can lead 200,000 men to war. The fertile Benin is more advanced in civilization than Ashantee. The latter, however, display much taste and elegance in their architecture; they also dye with skill, and manufacture cloths of exquisite fineness and brilliancy of color.

ASHES; the fixed residuum, of a whitish or whitish-gray color, which remains after the entire combustion of organic bodies, and is no longer able to support combustion. The constituent parts of ashes are different, according to the different bodies from which they originate. The ashes of vegetables consist chiefly of earthy and saline ingredients, the latter of which may be separated by washing, and are called *vegetable alkali*. (See *Alkali*.) The more compact is the texture of the wood, the more alkali it affords. Some herbs, however, yield more than trees, and the branching fern the most. The more the plants have been dried, the less they produce. The vegetable alkali is always combined with carbonic acid. The greater, therefore, the heat by which the ashes are produced, and the more

continued and powerful the calcination of the alkali, the more caustic will it be. It can only be entirely purified from foreign substances by crystallization. (See *Potash*.) Of quite a different quality are animal ashes, particularly those obtained from bone. After calcination, it retains its original texture, and contains, besides lime, a peculiar acid, called *phosphoric acid*.—The use of vegetable ashes is very extensive, as is well known; soap-makers, bleachers and other tradesmen use them in an immense quantity. They are, also, an excellent manure.

ASH-TREE. The common ash (*fraxinus excelsior*) is a well-known tree. It is a native of Europe and the north of Asia, and grows in a light, springy (but not marshy) soil, especially if marly or calcareous. When planted in bogs, it contributes much to drain them. It will grow in almost any situation, even in hard clay and dry gravel; though poor, dry, sandy ground is fatal to it. Its smooth, stately stem rises to a great height, with spreading, or, rather, drooping branches, with winged leaves, the leaflets in four or five pairs, with an odd one serrated, and without foot-stalks, and the flowers without petals.—Of late years, this valuable tree has been much planted in several parts of England. The timber, which has the rare advantage of being nearly as good when young as when old, is white, and so hard and tough, as generally to be esteemed next in value to oak. It is much used by coach-makers, wheelwrights and cartwrights; and is made into ploughs, axle-trees, felloes of wheels, harrows, ladders and other implements of husbandry. It is likewise used by ship-builders for various purposes, and by coopers for the hoops of tubs and barrels. Where, by frequent cutting, the wood has become knotty, irregular and veined, it is in much request for cabinet-work, by mechanics in Europe. As fuel, this tree burns better, whilst wet and green, than any other wood.

ASH-WEDNESDAY; the first day of Lent, a fast 40 days long, which the Catholic church orders to be kept before the feast of Easter. It derives its name from the ancient and still existing custom of putting ashes upon the head, as a symbol of humble repentance for sin. It was formerly, and, to a certain extent, is still the custom in Catholic countries, to confess on Ash-Wednesday, to chastise one's self during Lent, and to partake of the Lord's supper at Easter. In Rome, the spectacle is highly impressive, when all the people,

after giving themselves up to every species of gayety during the carnival, till 12 o'clock on Tuesday, go, on Ash-Wednesday morning, into church, where the officiating priest puts ashes on their heads, with the words, "Dust thou art, and unto dust thou shalt return." To throw ashes on the head, as an expression of humiliation and repentance, was an old custom of the Jews.

ASIA; the cradle of the human race, of nations, religions and states, of languages, arts and sciences; rich in natural gifts and historical remembrances; the theatre of human activity in ancient times, and still exhibiting, in many places, the characteristic traits which distinguished it many centuries since. It forms the eastern and northern part of the old world, and is separated from Australia by the Indian and the Pacific oceans, including the gulfs of Bengal, Siam and Tonquin; from America, on the N. E., by Cook's or Behring's straits, and on the E. by the great Eastern or Pacific ocean, including the gulf of Corea, the seas of Japan, Tongou (Yellow sea) and Okotsk; from Africa by the Arabian sea (with which is connected the Persian gulf) and by the Arabian gulf, or Red sea, with the straits of Babelmandel; from Europe by the sea of Azoph, with the straits of Caffa, by the Black sea with the Bosphorus, by the sea of Marmora and the Dardanelles, and by the Grecian archipelago. On the other hand, it is united with Africa by the desert isthmus of Suez, and with Europe by the waters of the Wolga (which rises near the Baltic, and falls, with the Ural, into the Caspian sea); also by the *rocky girdle*, as the Tartars call it, of the Ural and the Werchoturian mountains, which rise 77° N. lat. in Nova Zembla, separate the plain of the Wolga from the higher table-lands of Siberia, and are connected with Upper Asia by a branch of the Little Altai, abounding in ores. The area of Asia is calculated at 16,175,000 square miles. It extends from 26° to 190° E. lon., and from 2° to 78° N. lat. Its greatest breadth, from N. to S. is 4140 miles, and its greatest length about 8000. It is four times larger than Europe. It is divided into, 1, Southern Asia, comprehending Nalolia, Armenia, Curdistan, Syria, Arabia, Persia, Hindostan, Farther India, Siam, Malacca, Annam, Tonquin, Cochinchina, Laos, Cambodia, China, Japan; 2, Middle or Upper Asia, containing Caucasus, Tartary, Bucharia, Mongolia, Tungousia; 3, Northern or Russian Asia, from 44° N. lat., containing Kasan, Astrachan, Oren-

burg, Kuban, Kabarda, Georgia, Imireta, Siberia, with the Alpine regions of Dauria and Kamschatka. The centre of this continent, probably the oldest ridge of land on the earth, is called *Upper Asia*. Here the Bogdo (the majestic summit of the Altai) forms the central point of all the mountains of Asia. Upper Asia comprises, perhaps, the most elevated plain on the surface of the earth—the desert of Kobi, or Shamo, on the northern frontiers of China, 400 leagues long, and 100 leagues broad; barren, dry and waste; visited alternately by scorching winds and chilling storms, even in summer, and affording, besides its deserts, only rivers and lakes; as the Caspian, the lakes Aral and Baikal, and several situated among the mountains. From the northern and southern declivities of this region, the first tribes of men set out in all directions, following the course of the rivers in four chief lines of descent (north, east, south and west). At least, the radical words in the Indian, Median, Persian, Slavonian, Greek and Teutonic original languages, between which there are striking affinities, all point to the west of Upper Asia or Iran. Those heights in the Himalaya chain (q. v.), under the 35th degree of N. lat., which are said to attain an elevation of 27,677 English feet, could not be reached by the currents, which, coming from the south, where they were broken by cape Comorin and cape Romania, flowed round the Chinese sea to the north, where the East cape on the east, Tchukotskoï-Noss on the north-east, and the Icy cape in the Arctic ocean, became the extreme points of the continent. The islands in the east (Japan, the Kurile and Aleutian isles, those of Formosa, Hainan and Leeco-Keeoo) and in the south-west (Socotra, Ormus, &c.), in particular the groups of islands on both sides of the equator (see *Indies, East*), and the peninsulas Kamschatka and Corea, India on this side and beyond the Ganges, and Arabia, bear visible marks of the destruction of the primitive continent by fire and water; hence the numerous extinguished or still active volcanoes, in the interior, on the coasts, and particularly on the islands. The interior opens an immense field of scientific research for a traveller like Humboldt. The sources of all the large rivers of Asia, which must be sought for in the mountains of Upper Asia, have not been accurately examined since the time of Marco Polo. As little known are the southern declivities of the Mussag, Mustag (or *Imaus*), and of the Indian Alps, which

extend over 630,000 square miles, and contain the kingdoms of Thibet, Bootan, Nepaul, Assam, &c., with the snowy summits of the Hindoo Koosh (*Paropamisus*), Belurtag, Kentaisse and the Himalaya. It is the same with the northern elevation of the Altai, which, in the north-east, joins the mountains Changai (the holy land of Genghis Khan and of the Mantchoo tribes, extending to Corea and Japan). From the southern Alpine girdle descend the holy rivers of the Hindoos—the Bramapootra, the Ganges and Indus; in the east, the less known rivers of Irawaddy, Meinam, Lukian and Mecon (or *Cambodia*), and, in the west, the Euphrates and the Tigris (q. v.), which all take their course towards the south, and run into the great gulfs of the Indian ocean. From the northern ridge, the Oby, Yenisey, Lena and many others flow into the Arctic ocean; on the eastern coast, the great rivers Amour, Hoang-ho and Yang-tse-Kiang descend into the bays of the Pacific ocean; farther west, the Gihon, or Amu (the ancient *Oxus*), and the Sir-Daria, or Jihon (*Jaxartes* of the ancients), flow into lake Aral. Almost as little known are the western ranges of mountains, the Taurus in Natolia, and in Armenia the Ararat, near which the Euphrates and Tigris become much increased, and where, in ancient times, the Roman victories found a limit. We have lately become better acquainted with the mountain passes, through which the first inhabitants of Europe may have wandered from Asia, the valleys of the Caucasus, from the bosom of which the Cuban flows into the Black sea, and the Aras (*Araxes*), with the Kur, into the Caspian. —Nature has spread over Asia all the treasures of the earth, most abundantly in India; her bounties are distributed, by imperceptible gradations, through all its three zones. In the torrid zone, whose genial warmth converts the juices of plants to spices, balsam, sugar and coffee, with which Asia has enriched the West Indies, the palms (sago, cocoa, date and umbrella-palms) reach a height of 200 feet; and the white elephant attains a size surpassing that of all other quadrupeds. From hence the silk-worm was brought to Europe. This region conceals in its bosom the most beautiful diamonds, the finest gold, the best tin, &c., whilst the waves flow over the purest pearls and corals. The temperate zone has given to Europe the melon, the vine, the orange and many of its most agreeable garden-fruits, as well as the most productive farinaceous

grasses, and the most charming flowers; and unites, in its productions, symmetry with richness, particularly in the western regions. Here the oldest traditions place Paradise; here lie the enchanting Cashmere and the Garden of Damascus; here blossoms the rose of Jericho (*anastatica*), near the cedars of Lebanon. The eastern countries, in the same latitude, possess the tea-shrub and the genuine rhubarb. The camel, the Angora goat, the Thibetan sheep, the pheasant and the horse are natives of this zone. In the north blossoms the Alpine flora of Dauria, and from the icy soil grows the dwarf-like Siberian cedar, till, at 70°, vegetation mostly ceases. Here lives the smallest of quadrupeds—the shrew-mouse of the Yenisey. Sables, ermines, foxes, otters, &c. afford the finest fur. The mineral kingdom furnishes rich ores, rare precious stones, and remarkable fossil remains, e. g., those of the mammoth, in high northern latitudes. (See *Organic Remains*).—The inhabitants (amounting to 300,000,000; according to some, to 580,000,000) are divided into three great branches:—The Tartar-Caucasian, in Western Asia, exhibits the finest features of our race in the Circassian form: the Mongolian race is spread through Eastern Asia; the Malay in Southern Asia and the islands. The north is inhabited by the Samoiedes, Tchooktches and others. 24 tribes, of different language and origin, may be distinguished, some of which are the relics of scattered tribes of Nomades: Kamtschadales, Ostiaks, Samoiedes, Koriacks, Kurilians, Aleutians, Coreans, Mongols and Kal-mucks, Mantchoos (Tungoos, Daurians and Mantchoos Proper), Finns, Circassians, Georgians, Greeks, Syrians and Armenians, Tartars and Turks, Persians and Afghans, Thibetans, Hindoos, Siamese, Malays, Annamites (in Cochin China and Tonquin), Birmese, Chinese and Japanese, besides the indigenous inhabitants of the East Indian islands, Jews and Europeans. The principal languages are the Arabian, Persian, Armenian, Turkish, Tartar, Hindoo, Malayan, Mongol, Mantchoo and Chinese. Of the extinct civilized nation of the Igoors (Oigoores) in Upper Asia, the written characters have been preserved in Thibet. The Sanscrit of the Bramins is yet spoken in the higher mountains of India, and the ancient Pehlevi in the mountains of the Persian borders. The still more ancient Zend is entirely extinct; and the civilization of the old Iberians and Colchians,

on the Kur and Phasis (Georgia and Imireta), has left no vestiges. All the forms of society are displayed in the existing Asiatic nations, from the savage state of the wandering hordes to the most effeminate luxury; but liberty, founded on law and the moral and intellectual education of man, is wanting. Priests and conquerors have long decided the political character of the East, amidst frequent revolutions and changes of dynasties, ever maintaining the principles of blind obedience. Asia has been subject, at different times, to the Assyrians, Medes, Chaldeans, Persians, Greeks, Syrians, Parthians, Arabians, Mongols, Tartars, Seljooks, Turks, Afghans, &c. Ancient forms are preserved most rigidly, and the intellect is least progressive in China and Japan. Slavery still prevails in this continent. Woman yet remains degraded to a slave of man. The prevailing government is despotism, the offspring of Asia. Hence those artificial forms of a rigid etiquette, which are kept up in all the public relations, and that apathy of the people, in regard to fate, connected with cruelty, and produced partly by opium, partly by superstition, which is almost an universal characteristic of the Asiatics, notwithstanding the violence of their passions. There are, however, some tribes with a republican form of government; and relics of the patriarchal authority of the heads of families still are found. Near the colonies of the Europeans in Southern and Northern Asia, the civilization of the Christian world has been introduced. Christianity, though degenerated in many of the more ancient sects (see *Maronites*, *Monophysites* and *Sects*), has gained many adherents, throughout all Asia, by means of translations of the Bible, distributed by England and Russia. In Bengal and St. Petersburg, the translation of the Bible into the languages of Southern Asia has been prosecuted with a benevolent zeal. In Petersburg, similar efforts have been made for the benefit of the Mongolian Tartars. Even in China, Christians are found again, but none in Japan since 1637. The astronomy and astrology, poetry, morals, theology, laws, and the rude empirical medicine of the Asiatics, are mostly confined to the priests, and united with deeply-rooted superstition, which leads even to child-murder and self-sacrifice in the flames. The Mohammedan religion, the central point for instruction in which is at Samarcand, prevails in Western Asia. (See *Wahaby*.) Over all Central and the eastern part of Northern

Asia, prevails the religion of the Lama. The religion of Brama, the head-quarters of which is Benares, is confined chiefly to Hindostan, and Shamanism to the tribes in Northern Asia and to the Russian archipelago. The ancient doctrine of Zoroaster is confined to single families in India and Persia; whilst the Mosaic has numerous adherents through all Asia, except the Russian part. Physical and mechanical cultivation is carried to a higher degree of perfection than intellectual and moral; e. g., by the Indian jugglers and Chinese mechanics. Remarkable skill has been acquired by certain classes of Hindoos in the weaving of silk and cotton. The shawls of Cashmere, the leather of Persia and Syria (morocco, cordovan, shagreen), the porcelain of China and Japan, the steel of Turkish Asia, the lackered wares of China and Japan, &c. are well known. The internal commerce is still carried on by caravans, as in the most ancient times, before Abraham and Moses, when merchandise was transported from India, through Bactria, to Colchis, as at present to Makarieu, Moscow and Constantinople. The foreign commerce of China and the East Indies is wholly in the hands of the Europeans—English, Dutch and Russians—and of the North Americans. The religious, civil and social condition of the Asiatics proves, that, where the free development of the higher powers of man is subject to the restraints of castes, and to the tyranny of priests and despots, and where the adherence to established forms has become a matter of faith, law and habit,—the character of society must degenerate, and the energies of man become palsied. Hence the Asiatic, notwithstanding the richness of his imagination, never attained the conception of ideal beauty, like the free Greek; and, for the same reason, the European, whose mental improvement and social activity have been unimpeded, has shaken off the control which the East formerly exercised over the West, and has obtained dominion over the coasts and territories of his old lord and master. Greece led the way, and, after having transformed the obscure symbols of the East to shapes of ideal beauty, shook off the spiritual fetters of priests and oracles, and, at the same time, the temporal yoke which the Persian Darius had prepared for Athens and Sparta. After a struggle of 50 years, the triumphs of Cimon (in 449 B. C.) first enabled Europe to prescribe laws to the East. Grecian civilization then

spread over the whole of Western Asia, to India, and even the military despotism which succeeded has not been able to extinguish the light entirely. In later times, the Romans and Parthians fought for the possession of the Euphrates, and the Persians, under the Sassanides, attempted to tear the dominion of the world from the hands of Rome. Since that period, Asia has four times taken up arms against Europe. The nations of Upper Asia, driven from the frontiers of China to the Irish, crowded upon the West. Huns, Avari, Bulgarians and Magyars successively issued from the Caucasian gates, and from the wildernesses of the Ural, to subdue Europe; besides those later hordes, which were mingled and confounded with each other in Southern Russia and on the Danube. But the rude power of Attila and of the grandsons of Arpat was broken in conflict with the Germans. Next, the Arabians attacked Constantinople, Italy and France, but their fanatical impetuosity was checked by Charles Martel, in 732, and the chivalrous valor of the Gothic Christians rescued the peninsula within the Pyrenees. The West then armed itself against the East, to recover the holy sepulchre from the sultan of the Seljooks, and Christian Europe became better acquainted with Asia; but the sword alone cannot conquer a continent. (See *Crusades*.) Upper Asia sent again, under the Mongol Temudschin (see *Genghis-Khan*), her mounted hordes over the world. Again the Germans stayed the destroying flood near Liegnitz. (See *Wahlstadt*.) Finally, the Tartars and Ottoman Turks invaded Europe. In 1453, they took the Bosphorus and Greece from the feeble hands of the eastern Romans. In succeeding times, Europe has been defended against Asia, on this side, by Germany. The intellectual progress of the European, since that period, has raised him above the most ancient nations of the East—Persians, Arabians, Indians and Chinese. Gunpowder, the mariner's compass and the art of printing (which the last-mentioned nation possessed, but could not apply to much use), have become powerful in his hands. Hence Russia has gained the Wolga, explored Siberia, kept watch over the seat of the ancient and modern Scythians, the mountains of the Altai, and finally conquered the tribes of the Caucasus; whilst [since Vasco da Gama (q. v.) discovered the way by sea to the East Indies, in 1498] the Portuguese, Dutch and French, and par-

ticularly the English, by their universal commerce, have made the rich countries of Southern Asia acquainted with European laws, and Europe with the condition and luxury of those countries. Persia is already entangled in the European international policy, which is principally owing to the efforts of sir Harford Jones, sir Gore Ouseley, Mr. James Morier, and the Russian general Yermatoff. The diplomacy of the court of China, now more than 10 centuries old, still resists European encroachments, and the *celestial empire* prefers the North Americans to the English and Russians. Japan, alone, yet denies all approach to Europeans; and her jealousy is as effective as the polar ice, which blocks up the passages of the Frozen seas. But the inquisitive spirit of European navigators has gradually penetrated the most secluded regions, from the time of Marco Polo, the Venetian (1272), to that of the present English and Russians, who will soon join hands, or perhaps swords, in the heart of Asia. (For further information, see Malte-Brun's *Geography*; Murray's work *On the Progress of Discovery in Asia*; Ritter's *Geography*, an excellent and original work, published in 1824, by Reimer, Berlin; also, Leake's *Journal of a Tour in Asia Minor*; also, the articles on the different countries of Asia, and those on Niebuhr and Burckhardt.)

ASIA MINOR. (See *Natolia*.)

ASIATIC SOCIETIES AND MUSEUMS; learned bodies instituted for the purpose of collecting valuable information, of every kind, respecting the different countries of Asia. The three great central points where this knowledge is accumulated are, London, Paris and Petersburg. The royal Asiatic society of Great Britain and Ireland contains 300 members. It was established by Mr. Colebrooke, and opened March 19, 1823. Its transactions are published in London. Similar societies have been formed in Asia itself, at Calcutta, Bombay and Bencoolen. Since the foundation of the Asiatic society in Calcutta, by sir William Jones, in 1784, the study of Asiatic literature has made great advances. The secret of the Sanscrit literature has been obtained from the Brahmins, and its connexion with the Greek put beyond doubt. Works have been printed which greatly facilitate the study of the Arabian and Persian languages and literature. Asiatic philology has made great progress. Even Chinese literature has come forth from its recesses.—The *société Asiatique*, at Paris, was founded, in

1822, by a number of learned men. Its honorary president is the duke of Orleans. It opened its sittings April 21, 1823, having already commenced, in July, 1822, the publication of the *Journal Asiatique, ou Recueil de Mémoires, d'Extraits et de Notices relatifs à l'Histoire, à la Philosophie, aux Sciences, à la Littérature et aux Langues des Peuples Orientaux*. The 2d vol. appeared in 1823. The museum connected with it was established in 1823. The principal members, who are, at the same time, editors of the journal, are Chézy, Cocquebert, de Montbret, Degérando, Fauriel, Grangeret, de Lagrange, Hase, Klaproth, Abel Remusat, Saint-Martin, Silvestre de Sacy. The latter is president of the standing committee. In the Asiatic societies at Paris and London, professorships of the Oriental languages are wanting, which are connected with the society at Petersburg. London is particularly deficient in this respect, the professors being confined to Oxford and Cambridge. The newly-established professorships in Halesbury are destined exclusively for the education of young men for the service of the East India company. In Paris, lectures are given on the Arabian, Persian, Turkish, Sanscrit, Chinese and Tartar languages, in the *collège royal*, and in the royal library.

ASIOLE, Bonifacio; a musical composer, born at Corregio, in Modena, 1769. As early as his 8th year, he composed without instruction; in his 10th, he was instructed in composition by Morigi, in Parma; in his 12th, he gave two concerts at Vicenza. After a residence of four months in Venice, he returned to Corregio, where he was appointed master of the chapel, and composed musical pieces of every description. In his 18th year, he went to Turin, where he resided about nine years, and likewise composed much. In 1796, he again visited Venice, and, in 1799, Milan, where he remained till 1813, was made director of music to the then viceroy, and composed very assiduously. As *censor* of the conservatory in Milan, he wrote several books of instruction, e. g., *Trattato d'Armonia, Principj Elementari, Dialogo sul Trattato, &c., Preparazione al bel Canto, contenente Molti Solfeggi d'Armonia*. Since 1813, he has lived in his native place. His greater works are little known beyond Italy, but are said to be very scientific. (For a list of his works, see the *Leipsic Musical Journal*, 1820, No. 40.)

ASLAN, or ASLANI; in commerce, a name given to the Dutch dollar, in most

parts of the Levant. Sometimes the word is written *asselani*. It is of Turkish origin, signifying a *lion*, the figure stamped on these dollars. It is silver, but much alloyed, and is current for 115 to 120 aspers. (See *Asper*.)

ASMANNSHAUSEN, wine of. The plant which yields this wine grows on the Rhine, below Rüdesheim, a village on the banks of that river, on a soil formed of blue slate. The red kind, the production of a small, red, Burgundy vine, is the more valuable. Its color is peculiar. In some places, an awme (a seventh of an English tun) of the best must often costs from 120 to 160 florins. It retains its value only 3 or 4 years. After this time, it grows worse every year, and precipitates the whole of its red coloring-matter. Many delicate judges of wine prefer the red sort to the best Burgundy. It is distinguished by color and taste from all the other Rhenish wines. We know of instances in which it has borne transportation across the Atlantic.

ASMODAI; according to Hebrew mythology, an evil spirit which slew several husbands of Sara, daughter of Raguel, at Rages. By the direction of the angel Raphael, the young Tobias drove him away, with the smell of a fish's liver burnt on the coals, into the uttermost parts of Egypt, where the angel bound him.—*Asmodai* signifies a *desolator*, a *destroying angel*; it is also written *Abaddon*.

ASOPUS; the name of several rivers in Greece. The most celebrated of this name are those in Achaia and Bœotia. (See *Ægina*.)

ASP, ASPIC; a species of viper found in Egypt, resembling the *cobra da capello*, or spectacle serpent of the East Indies, except that the neck of the asp is not so capable of expansion, and its color is greenish, mingled with brown. The asp is the *coluber haje*, L., *vipera haje*, Geoff. —This venomous serpent is found in the vicinity of the Nile, and has been celebrated for ages, on account of the quick and easy death resulting from its bite. When approached or disturbed, this viper, like the *cobra da capello*, elevates its head and body to a considerable degree, extends the sides of its neck, and appears to stand erect to attack the aggressor. This peculiarity gave origin to the ancient Egyptian superstition, that the asps were guardians of the spots they inhabited, and led to the adoption of the figure of this reptile as an emblem of the protecting genius of the world. Hence, on the portals of Egyptian temples, it is common to

see, carved on each side of a globe, one of these serpents, in the attitude above described. The same device is also found among the paintings on the coffins of mummies, which also contain representations of the asp in various relations to other hieroglyphics.—The circumstance originating the preceding notion has led to the employment of the asp as a dancing serpent by the African jugglers, either for exhibition as a source of profit, or to impose upon vulgar credulity. The asps for this purpose are carefully deprived of their fangs, which enables their owners to handle them with impunity. When they are to be exhibited, the top of their cage, commonly a wicker-basket, is taken off, and, at the same moment, a flute or pipe is played. The asp immediately assumes the erect position, and the balancing motions, made during its protracted efforts to maintain this attitude, are what is called *dancing*. A really curious circumstance is stated, on good authority, relative to the asp, which is, that the jugglers know how to throw it into a sort of catalepsy, in which condition the muscles are rigidly contracted, and the whole animal becomes stiff and motionless. This is done by compressing the cervical spine between the finger and thumb. The trick is called *changing the serpent into a rod or stick*. In the relation given by Moses of the miracles performed before Pharaoh, to induce him to allow of the departure of the Israelites, we read, that “Aaron cast down his rod before Pharaoh and his servants, and it became a serpent. Then Pharaoh called also the wise men and the sorcerers: now the magicians of Egypt, they also did in like manner with their enchantments: for they cast down every man his rod, and they became serpents: but Aaron’s rod swallowed up their rods.” *Exod. vii. 10, 11, 12*. It is possible, that, to keep up their credit with Pharaoh, by appearing to possess equal power with Aaron, the Egyptian jugglers held asps in their hands, in the cataleptic condition above described, as rods, which only required to be thrown down to resume their activity as serpents. The superiority of the real miracle of Aaron’s transformed rod over this pretended one of the jugglers, is shown by the swallowing up of the other serpents.—The asp has also acquired a great degree of notoriety in consequence of the use made of it by Cleopatra, the queen of Egypt, equally famous for the brilliancy of her charms and the licentiousness of her life. In his *Life of*

Mark Antony, Plutarch makes the following statement, which shows to what an extent a vicious course of living had corrupted a noble and talented woman:—“Antony and Cleopatra had before established a society, called the *inimitable livers*, of which they were members; but they now instituted another, by no means inferior in splendor or luxury, called the *companions in death*. Their friends were admitted into this, and the time passed in mutual treats and diversions. Cleopatra, at the same time, was making a collection of poisonous drugs, and, being desirous to know which was least painful in the operation, she tried them on the capital convicts. Such poisons as were quick in their operations, she found to be attended with violent pain and convulsions; such as were milder were slow in their effects. She therefore applied herself to the examination of venomous creatures, and caused different kinds of them to be applied to different persons, under her own inspection. These experiments she repeated daily, and at length she found that the bite of the asp was the most eligible kind of death; for it brought on a gradual lethargy, in which the face was covered with a gentle sweat, and the senses sunk easily into stupefaction. Those who were thus affected showed the same uneasiness at being disturbed or awaked, that people do in the profoundest natural sleep.” *Langhorne’s Plutarch*.—It is not surprising that Cleopatra finally resorted to the asp to destroy her own life. This is stated very doubtfully by Plutarch, and is, by Brown, ranked among his popular errors; yet, as the Egyptian queen is known to have committed suicide, we cannot doubt, after what we have cited from Plutarch, that she resorted to the mode of dying which her own experiments had proved most easy. As two small punctures were found on her arm, quite adequate to produce the result, if made by an asp, we conclude, with Shakspeare, that it is

——most probable

That so she died; for her physician tells me
She hath pursued conclusions infinite
Of easy ways to die. *Antony and Cleopatra*.

—Dreadful as the poison of the asp, and, indeed, of most of the vipers, is, it may be rendered entirely harmless by immediately applying forcible pressure on the side of the wound nearest the heart. In this way the cupping-glass, ligature, &c., produce their beneficial effects, and not by the removal of the poison. For a most satisfactory establishment of this

highly important fact, the scientific world is indebted to Caspar W. Pennock, M. D. of Philadelphia, whose experiments are published in the 1st vol. of the *American Journal of the Medical Sciences*, where he has shown that simple pressure, however applied, sufficient to close the vessels on the side of the wound next the heart, prevents any poison, even that of the rattlesnake, from producing injurious consequences.

ASPARAGUS. *Asparagus officinalis* is a well known plant, the young shoots of which are a favorite culinary vegetable. Few circumstances in the phenomena of vegetation are more remarkable than the gradual enlargement of size, and improvement of quality, which have taken place in the cultivation of asparagus. It grows wild on the pebbly beach near Weymouth (England), and in the island of Anglesea; but its stem, in these situations, is not usually thicker than a goose-quill, and its whole height does not exceed a few inches: whereas, in gardens, its stem is sometimes nearly three quarters of an inch thick, and its height, when at maturity, is four or five feet. Asparagus is one of the greatest delicacies which our kitchen gardens afford, and it is particularly valuable from the early season at which it is produced. It is usually raised from seed, in beds formed for the purpose; and the plants should remain three years in the ground before they are cut; after which, for several years, they will continue to afford a regular annual supply. During the winter, they are secured from the effects of frost by the beds being covered some inches thick with straw or litter. In the cutting of asparagus, the knife is passed three or four inches beneath the ground. The plants are cut by sloping the blade upward; and the white part that we see is that which had not previously been exposed to the air. The smallest plants are suffered to grow, for the purpose of producing berries to restock the beds, and keep them continually in a state of supply.

ASPASIA was born at Miletus, in Ionia. Her father's name was Axiochus. She seems to have followed the example of Thargelia, another beautiful woman of Ionia, who united a love for politics and learning with all the graces of her sex. All foreign women, in Athens, were deprived of the benefits of the laws: their children were looked upon as illegitimate, even though they were the offspring of a lawful marriage. To this circumstance it is in a great measure owing, that A.

has been classed among courtesans. She devoted her attention to politics and eloquence. Plato mentions an elegant speech, which she delivered in praise of the Athenians who fell at Lechæum; and she is asserted to have instructed Pericles in eloquence. Her house was the general resort of the most virtuous, learned and distinguished men in Greece, and Socrates often favored her with his company: he was even accused of a sensual passion for her. She inspired the strongest and most enduring affection in the heart of the noble Pericles, who understood the grand secret of being, at the same time, the citizen and the ruler of a republic. The people used to call Pericles *Olympian Jupiter*, and his companion *Aspasia Juno*. The orator divorced his former wife to marry A. Plutarch relates, that he constantly evinced the liveliest attachment for her—a feeling which could never have been inspired by a low and corrupt courtesan. She is accused of having been the cause of two wars—one between the Athenians and Samians, on account of her native Miletus; the other between the Athenians and Lacedæmonians, on account of Megara. Plutarch acquits her of this charge, and Thucydides does not mention her name, though he relates the minutest circumstances which gave birth to the Peloponnesian war. The accusation alluded to is mentioned only by Aristophanes, whose historical correctness cannot be trusted. When the Athenians were dissatisfied with Pericles, instead of attacking him, they persecuted the objects of his particular favor, and accused A., among others, of contempt of the gods. Pericles burst into tears, in the midst of the areopagus, while advocating her cause, and disarmed the severity of the judges. After his death, A., who had been the friend of Socrates, the companion of Pericles, and the object of Alcibiades' devoted adoration, is said to have attached herself to an obscure individual, of the name of *Lysicles*, whom she soon made, however, an influential citizen in Athens. It may be said, with safety, that A. had an important influence over the whole nation; for the men who sat at the helm of government were formed in her society. Her name was so celebrated, that the younger Cyrus named his favorite Milto after her; for *Aspasia* signified the loveliest of women, as *Alexander* the bravest of heroes.

ASPECT, in astronomy and astrology, denotes the situation of the planets and

stars with respect to each other. There are five different aspects:—1, sextile aspect, when the planets or stars are 60° distant, and marked thus, *; 2, the quartile or quadrato, when they are 90° distant, marked \square ; 3, trine, when 120° distant, marked \triangle ; 4, opposition, when 180° distant, marked δ ; and, 5, conjunction, when both are in the same degree, marked \odot . Kepler added 8 more. It is to be observed, that these aspects, being first introduced by astrologers, were distinguished into *benign*, *malignant*, and *indifferent*; and Kepler's definition of *aspect*, in consequence, is, "*Aspect* is the angle formed by the rays of two stars meeting on the earth, whereby their good or bad influence is measured."

ASPERN. The aspen or trembling poplar (*populus tremula*), is a tree which grows in moist woods, has nearly circular leaves, toothed and angular at the edges, smooth on both sides, and attached to foot-stalks so long and slender as to be shaken by the slightest wind. There is scarcely any situation in which the aspen will not flourish; but it succeeds best where the soil is moist and gravelly. Its wood is light, porous, soft, and of a white color, and, though inferior in excellence to that of the white poplar, is applicable to many useful purposes. It is used, particularly, for field-gates, the frames of pack-saddles, for milk-pails, clogs, and the wood of patters. It is improper for bedsteads, as it is liable to be infested by bugs. In some countries, the bark of the young trees is made into torches.

ASPER, ASPRE, OR ARKTSHE; the smallest silver coin of Turkey. The common asper, since 1764, has amounted to the 35th part of a drachm of fine silver. 3 make a para, 120 a piaster or dollar. The great or heavy aspers, in which the court-officers receive their payment, are of double the value and weight of the common asper.

ASPERN AND ESSLINGEN; two villages lying east of Vienna, and on the opposite bank. They are celebrated for the battle fought, May 21st and 22d, 1809, between the archduke Charles and the emperor Napoleon. After the fall of the capital, the Austrian general resolved to suffer a part of the enemy's forces to pass the Danube, and then to surround them with his own army, and drive them, if possible, into the river. Every thing seemed to favor this plan; but it was frustrated by the energy of the French general, and the extraordinary valor of his troops. The

archduke now stationed himself behind Gerasdorf, between Bisamberg and Russbach, from which he issued with his army in five columns, consisting of 75,000 men, with 288 pieces of cannon, May 21, at noon, just as Napoleon, with about half his forces, had left the island of Lobau, in the Danube. By a dexterous evolution of his troops, he immediately formed a semi-circle, in which the French army was, in a manner, enclosed. In the narrow plain between Aspern and Esslingen (they are about two miles distant from one another), a bloody engagement now commenced. Every thing depended on the possession of these two villages: Aspern was, at first, taken by the Austrians, again lost and retaken, till they, at length, remained masters of it: from Esslingen they were continually repulsed. Napoleon repeatedly attempted to force the centre of the Austrians, but was frustrated by the firmness of their infantry. At last, the darkness of the night put a temporary stop to the contest. The bridge, connecting the right bank of the Danube with the island of Lobau, had already been destroyed, so that the French reinforcements came up slowly, being compelled to sail over in small parties, and the whole corps of Davoust, on the right bank, were idle spectators of the battle. Notwithstanding these disadvantages, the battle was renewed on the 22d; the French army being now increased so as, at least, to equal the Austrians in number. The engagement was of the same exterminating character as on the day before; thousands of lives were sacrificed in vain attempts to capture the villages. Aspern continued to be the strong-hold of the Austrians, and Esslingen of the French. When the army of Napoleon gave up all hopes of gaining the victory by forcing the centre of the Austrians, Esslingen served to secure their retreat to the island of Lobau, which was disturbed only by the cannon of the archduke. It has been said, that the archduke did not make a proper use of his advantage; but this assertion will be shown to be erroneous, if we consider the position of the French on the island, the courage of his adversary, and the want of materials for rebuilding bridges. The loss of the Austrians, in killed, wounded, &c., was estimated at less than a third of the whole army; that of the French at half. The latter lost, on this occasion, marshal Lannes. (q. v.) The feelings of the combatants were too violent to allow of many prisoners being made.

ASPHALTITES; a lake of Judea. (See *Dead Sea*.)

ASPHALTUM. (See *Bitumen*.)

ASPHYXIA (from a privat, and *σφξίς*, the pulse); the state of a living man, in whom no pulsation can be perceived. It begins with an inactivity of the lungs, which proceeds to the heart and brain. The person appears dead, without breath, pulsation or feeling. It may be occasioned by different causes, either such as interrupt the mechanical motion of breathing, or such as disturb the action of the lungs themselves. The former may be caused by an external pressure on the breast, if air enters the thorax through wounds, or by an accumulation of blood in the lungs, so that they cannot contract themselves: the latter state takes place if no air at all enters the lungs, as is the case with suffocated, drowned or hanged persons, or if the air breathed in cannot support life. (For the treatment of persons suffering from asphyxia, see *Death, apparent*.)

ASPINWALL, William, M. D., was born in Brookline, Mass., May 23 (old style), 1743. He was descended from ancestors who came from England, about the year 1630, with the 4000 emigrants. He was graduated at Harvard university, in 1764. Immediately afterwards, he began the study of medicine, with Dr. Benjamin Gale, of Conn., and completed his course at the hospital of Philadelphia, in the university of which city he received his medical degree about the year 1768. He then returned to his native village, and commenced the exercise of his profession, being the first physician who settled in the place. When the revolutionary war broke out, he applied for a commission in the army; but his friend and relation, doctor, afterwards major-general Warren, persuaded him to enter the service in a medical capacity. In consequence, Dr. A. was appointed surgeon in general Heath's brigade, and, soon after, through the influence of general Warren, deputy-director of the hospital on Jamaica plain, a few miles from Boston. He fought, in person, as a volunteer, in the battle of Lexington, and bore from the field the corpse of Isaac Gardner, whose eldest daughter he afterwards married. After the death of Dr. Zabdiel Boylston, the first inoculator of small-pox in America, Dr. A. undertook the prosecution of that system, and erected hospitals for the purpose in Brookline. He perhaps inoculated more persons, and acquired greater skill and celebrity in treating this disease, than any other physician ever did

in the U. States. Besides his practice in this disorder, when it was generally prevailing, he was permitted, after the year 1788, to keep an hospital open at all times, to which great numbers resorted. When vaccine inoculation was first introduced, he was aware that, if it had the virtues ascribed to it, his pecuniary prospects would be essentially affected. But he deemed it his duty to give it a fair trial; and, finding it succeed, he promptly acknowledged its virtue, saying to Dr. Waterhouse, who raised the first vaccine pustules ever seen in the new world, "This new inoculation of yours is no sham. As a man of humanity, I rejoice in it; although it will take from me a handsome annual income." As a physician, Dr. A. obtained great distinction. To his practice, which was very extensive, he devoted himself, with unceasing ardor and fidelity, for the space of 45 years, during the greater part of which time he rode on horseback, often upwards of 40 miles a day, and seldom retired to rest until after midnight. For some years before his death, he was afflicted with blindness, occasioned by a cataract in the eye, which had been brought on by reading and writing late at night. He bore this misfortune with resignation and tranquillity, and preserved, to the last, his curiosity about daily occurrences and public events. He died, April 16, 1823, of natural decay, having nearly completed his 80th year, with the calmness and composure of a Christian, whose duties he had always fulfilled.

ASPIRATE, or SPIRITUS ASPER, in grammar; an accent peculiar to the Greek language, marked thus (´), and importing that the letter over which it is placed ought to be strongly aspirated, that is, pronounced as if an *h* were prefixed.

ASRAEL, in the Mohammedan mythology; the angel who watches the souls of the dying.

Ass (*equus asinus*, L.). This well-known and valuable species of horse is a descendant of the *onager*, or wild ass, inhabiting the mountainous deserts of Tartary, &c., and celebrated, in sacred and profane history, for the fiery activity of its disposition, and the fleetness of its course. But, in the state of degradation induced by rearing a succession of generations under the most debasing influences of slavery, the severest labor, combined with exposure to all the rigors of climate, and miserable fare, the ass has long since become proverbial for stolid indifference to suffering, while the insensibility induced

by protracted ill usage has fixed upon the race the character of obstinacy and stupidity.—The ass is truly smaller in size, and wanting in that ardor and impetuosity which distinguish the horse, yet there are circumstances in which these differences give the ass a higher value. He requires a smaller quantity, and is content with a coarser quality, of food than the horse, and is therefore far better adapted for hilly and mountainous regions, where the horse is more difficult to feed, as well as less able to travel to advantage. In high and dry situations, over the most precipitous roads, the ass moves with ease and security, under a load which would render it almost impossible for a horse to advance with safety. In various parts of South America, asses are exceedingly serviceable in carrying ores, &c., down steep mountains; and in the West India islands, they are of great value in carrying the sugar-cane to the mills, from situations barely accessible to man, on account of the acclivity of the ground.—Washington, so justly named the *father of his country*, was the first who introduced this useful animal into the U. States; and his laudable example has since been imitated by a small number of agriculturists. Nevertheless, either from prejudice or neglect, the benefits derivable from a more general employment of this animal for draught and burthen have not been attained.—The best breed of asses is that originally derived from the dry and hot regions of Asia; perhaps the best breed now accessible to Americans is the Spanish, which was obtained through Arabia and Egypt, and long received a most careful attention in Spain. During the existence of the Spanish dominion in the southern portion of the American continent, this breed was generally introduced, and may be thence obtained at this time in considerable perfection. Those raised in Peru, where the breeding of the animal is carefully attended to, are very good. Very valuable asses are also exported from the island of Puerto Rico to the adjacent islands, where they are more useful in the cultivation of sugar than horses, as they consume much less provender, and, as already stated, are better adapted to the work.—The male ass is in condition to propagate his species at two years of age; the female still earlier; and both sexes manifest a sexual ardor which is really surprising, and sometimes destructive. It therefore becomes necessary to geld the males not intended to continue the race, and the operation is performed in the same way as on horses.

The regular season for the females is about the month of June, though many observe no regular period; in the latter case, however, they are less productive. The ass carries her young 11 months, and foals at the commencement of the 12th. The mare is again in condition to receive the male seven days after foaling, and may thus be almost constantly kept breeding, until too far advanced in life. It happens exceedingly seldom that more than one foal is brought forth at once: the mare exhibits great attachment to this while it is suckling: it becomes necessary to wean it at six months old, if the mare be again gravid. The teeth of the young ass follow the same order of appearance and renewal as those of the horse.—The most general color of the ass is a mouse-colored gray, with a black or blackish stripe, extending along the spine to the tail, and crossed by a similar stripe over the fore-shoulders. Varieties of color are observed in different breeds, though by no means to the same extent as among horses. In some places, dappled and pied asses are not uncommon, and pure white ones are also found. In proportion as the color of the ass verges toward reddish-brown or bay, it is considered as an indication of bad disposition and inferior quality.—As we cannot, for want of space, enter upon a more detailed history of this species, we may sum up the circumstances which entitle the ass to a greater degree of attention than it has hitherto received, by observing that it is gentle, strong, hardy, patient of toil, requiring but a small quantity of coarse food, sure-footed, and capable of a high degree of attachment to its owner. It is especially suited to the cultivation of light and dry soils, in hilly or mountainous districts, or in hot and dry climates, where the breed arrives at the highest perfection.—The disagreeable noise called *braying*, the voice of this species, is owing to the peculiar construction of the larynx. In the geldings, this ceases to be an inconvenience; as they attempt to bray but seldom, and always in a low key. Nothing is more certain than that, as this species has exceedingly deteriorated under a long-continued ill usage, it might be improved to an equal degree by the same attention which is bestowed on the breeding of other domestic animals. The life of the ass does not exceed 30 years.—Asses' milk, long celebrated for its sanative qualities, more closely resembles that of the human female than any other. It is very similar in taste, and throws up an equally

fluid cream, which is not convertible into butter. Invalids suffering from debility of the digestive and assimilative functions make use of asses' milk with great advantage: persons in consumption also derive benefit from its use, as it is at once nutritive and unproductive of irritation while digesting. The ass, whose milk is taken for invalids, should have foaled but a short time previously, and be secluded from the male. The quality of her food, and her comfortable stabling, should also be particularly attended to.—The mules produced between the he-ass and the mare are generally known; and they combine the good qualities of both animals in a remarkable degree. In some countries, they are even more highly prized than horses, on account of their greater hardiness. The mule produced between the horse and the she-ass is a smaller animal than the common mule, and altogether inferior.

ASSALINI, Pietro, of Modena, studied medicine in Italy. On account of a duel in which he had been concerned, he entered the French army as surgeon-major, and accompanied Napoleon's expedition to Egypt, as far as Jaffa. At this place, the French garrison was attacked by the plague, and, at the end of 40 days, the number of men able to bear arms was reduced two thirds. In his *Mémoire sur la Peste* (Observations on the Plague) (1803), he maintains that the plague is not so dangerous for physicians and attendants as is commonly supposed, if they remain with the sick only as long as their duties require, and immediately inhale fresh air. He states that baron Larrey dissected several persons, who had died of that disease, and carefully examined the biles caused by it; and that Desgenettes introduced into his blood, by a lancet, the poison from one of these sores, in two different places; but neither of these physicians was attacked by the disease. To these observations on the plague are added remarks on the yellow fever in Cadiz, on the dysentery, so frequent in armies, and on the mirage, or image of the opposite shore reflected from the clouds, in the straits of Sicily and Calabria. (See *Fata Morgana*.) Napoleon raised the author to important and influential stations. In 1811, he wrote a work, in Italian, on diseases of the eyes, which was highly approved, and added much to his fame. He published, also, the same year, *Novi Strumenti di Ostetricia e loro Uso*, and recommended a new forceps to be employed in delivery, with improved instruments for the Cæsarean

operation, which were approved by a committee of the national institute. In the Russian campaigns of 1812 and 1813, he had the misfortune to freeze some of his limbs. He is still living at Milan, an esteemed physician, and professor of clinical surgery. His treatise on surgery, in Italian, is a valuable work.

ASSAM, or ASHAM; a country between Bengal and Thibet, 700 miles in length, by about 70 in breadth. It is intersected by the Bramapootra, and several other rivers; is very fertile; and, in the beds of the rivers, a considerable quantity of gold is found. It also yields ivory, lac, pepper, silk, cotton, &c. The inhabitants are genuine Hindoos. No European merchant is permitted to settle in this country without the previous permission of the East India company—a favor which was granted to it by the rajah, after having been reinstated in his government by its assistance, in 1793.

ASSAS (Nicholas), chevalier d', was born at Vigan. He was commander of a French regiment at Auvergne, and, by his patriotic death, made himself worthy of the admiration of posterity. On the night of the 15th of October, 1760, he commanded an outpost at Klosterkamp, in the neighborhood of Gueldres, and, at break of day, went out to examine the posts. On this expedition, he fell in with a division of the enemy's troops, who were on the point of assaulting the French army. He was seized, and threatened with immediate death if he uttered a cry to alarm his regiment. The safety of the French forces was at stake. Without a moment's hesitation, he summoned all his strength, and exclaimed, "Onward, Auvergne! here is the enemy!" The threat was immediately executed, but the patriot had gained his object; the attack was unsuccessful. Assas was never married; but a pension of 1000 livres was decreed to his family forever: the payment was interrupted during the revolution, but has since been renewed.

ASSASSINS. (See *Ishmaelites*.)

ASSAULT (*law*) (*assultus*, from the Fr. *asslayer*); an attempt or offer, with force and violence, to do a corporeal hurt to another; as by striking at him, with or without a weapon. Assault does not always necessarily imply a hitting or blow; because, in trespass for assault and battery, a man may be found guilty of the assault, and acquitted of the battery. But every battery includes an assault. If a person in anger lift up or stretch forth his arm, and offer to strike another, or menace any one with any staff or weapon,

it is an assault in law; and if a man threaten to beat another person, or lie in wait to do it, if the other is hindered in his business, and receive loss thereby, an action lies for the injury.—Any injury, however small, actually done to the person of a man, in an angry or revengeful, or rude or insolent manner, as by spitting in his face, or any way touching him in anger, or violently jostling him, is a battery in the eye of the law. To lay hands gently upon another, not in anger, is no foundation of an action of trespass and assault: the defendant may justify so doing in defence of his person or goods, or of his wife, father, mother or master, or for the maintenance of justice.—If an officer, having a warrant against one who will not suffer himself to be arrested, beat or wound him in the attempt to take him, he may justify it: so if a parent, in a reasonable manner, chastise his child, or a master his servant, being actually in his service at that time, or a schoolmaster his scholar, or a gaoler his prisoner, or even a husband his wife (for reasonable and proper cause); or if one confine a friend, who is mad, and bind and beat him, &c., in such manner as is proper in his circumstances; or if a man force a sword from one who offers to kill another, or beat one who makes an assault upon his person, or that of his wife, parent, child, or master; or if a man fight with or beat one who attempts to kill any stranger, if the beating was actually necessary to obtain the good end proposed; in all these cases, it seems, the party may justify the assault and battery.

ASSAULT (*mil.*). (See *Siege*.)

ASSAY-BALANCE; a very delicate balance, employed in determining with great precision the weight of minute bodies. It is used for assaying metals.

ASSAYING; a species of chemical analysis, to ascertain the quantity of gold or silver in a metallic alloy. In its more extended meaning, it is used for the determination of the quantity of any metal whatsoever, in composition with any other metal or mineral. The assaying of gold or silver is divided into two operations; by one of which they are separated from the imperfect metals, or those easily oxydized; by the second they are separated from the metals which resist oxydation by simple exposure to the air, and which are, therefore, called the *perfect metals*. This second process generally consists in separating gold and silver from each other, as the third perfect metal, platina, is but seldom found united to them. The method of separating gold or silver from the other

metals is founded on the facility with which the latter imbibe oxygen, and the process is calculated to accelerate this operation; hence the oxyde of lead, or litharge, is generally considered as the most powerful purifier of the perfect metals, from the ease with which it parts with its oxygen to the imperfect metals united with them; but, of late, oxyde of manganese has been found superior to it, in several instances, for this purpose. In the chemical analysis of metals, the oxyde of lead is generally preferred for the above purpose; but, in the assays performed by order of government, metallic lead is always used, probably from the facilities which it is supposed to afford for determining the weight of different ingredients by calculation. The lead in the process first becomes oxydated, then yields some of its oxygen to the other imperfect metals, and afterwards becomes vitrified, in conjunction with the other oxydes so formed, and carries them off with it, leaving the perfect metals pure. The above operation is called the *cupellation*, and is performed on a flat, round cake of bone-ashes, compressed within an iron ring, which is named a *cupel*: this is placed in a vessel called a *muffle*, which resembles a small oven, fixed in a furnace capable of giving a heat sufficient for the fusion of gold, so that its mouth may come in contact with the door, at the side to which it is luted, to separate it from the peal: there are small slits made in the sides of the muffle, to afford a passage for the air.

ASSELYN, John; a Dutch painter of the 17th century. He was a pupil of Isaiah Vandervelde, and afterwards went to Rome. Settling at Amsterdam, in 1645, he obtained great reputation by the productions of his pencil, which consist principally of historical paintings, battle-pieces, and landscapes with ruins, and are distinguished for their adherence to nature and correct style of coloring. A set of his landscapes (24 in number) has been engraved by Perelle. He died in 1650, aged about 40.

ASSEMANNI, Simon; born Feb. 20, 1752, at Tripolis di Soria; one of the most learned Maronites of modern times. He was educated in Rome, where his family enjoys the rights of citizenship and patrician honors. In 1785, he was appointed professor at Padua, where he died, April 8, 1821. He began the series of his works with *Museo Cufico Naniano* (Venice, 1788, 2 vols. folio), an explanation of the Cufic Arabian antiquities in the palace Nani at Venice. His *Explanation of*

Arabian Monuments in Sicily is highly esteemed, and equally so his Description of a *Globus Celestis*, with Arabian letters, which was in the museum of the cardinal Borgia. Assemanni was a very laborious student till his death.

ASSEMBLY, GENERAL. This name signifies, in some of the U. States of America, the two branches of the legislature; e. g., in Vermont, Connecticut, Pennsylvania, Virginia, &c. In some other states, the house of representatives is called the *assembly*, as in New York. In New Jersey, the house of representatives is called *general assembly*.—*General assembly*, in Scotland, is the name of the supreme ecclesiastical court in Scotland, which holds its meetings annually, and consists of a certain number of ministers and ruling elders, delegated from the various presbyteries, according to the number of parishes contained in each.

ASSENT, THE ROYAL, is the approbation given by the king in parliament to a bill which has passed both houses; after which it becomes a law. The royal assent may be given in two ways:—1. In person; when the king comes to the house of peers, and, the commons being sent for, and standing at the bar, the titles of all the bills that have passed both houses are read, and the king's answer is declared by the clerk of the parliament in Norman-French, with several singular ceremonies. If the king consents to a public bill, the clerk usually declares *Le roi le veut* (The king wills it); if to a private bill, *Soit fait comme il est désiré* (Be it as desired). If the king refuses his assent, it is in the gentle phrase, *Le roy s'avisera* (The king will consider of it). When a money-bill, or bill of supply, is passed, it is carried up and presented to the king by the speaker of the house of commons, and the royal assent is thus expressed—*Le roy remercie ses loyal sujets, accepte leur benevolence, et aussi le veut* (The king thanks his loyal subjects, accepts their benevolence, and wills it also). 2. By the statute 33 Hen. VIII, ch. 21, the king may give his assent by letters patent, under his great seal, signed with his hand, and notified in his absence to both houses, assembled together in the upper house.—When the president of the U. States approves a bill passed in both houses, he writes under it *Approved*, with his name. (See *Sanction*.)

ASSETS (Fr. *assez*, i. e. *satis*). Goods enough to discharge the burden which is cast upon the executor or heir, by satisfying the debts and legacies of the testator or ancestor.—Assets are real or personal.

Where a man holds lands in fee-simple, and dies possessed thereof, the lands which come to his heirs are assets real; and when he dies possessed of any personal estate, the goods which come to the executors are assets personal.

ASSIENTO (*Spanish*, for *treaty*); the permission of the Spanish government to a foreign nation to import negro slaves from Africa into the Spanish colonies in America, for a limited time, on payment of certain duties. Philip IV and Charles II concluded a treaty of this sort with the people of England and Holland. The English were the sole possessors of this *assiento* till 1701. They lost it when Philip V of Anjou ascended the throne of Spain; but, in 1702, the French Guinea company, who afterwards assumed the title of the *assiento company*, became possessed of this privilege for 10 years, within which period they were permitted to import yearly 4800 slaves, of both sexes, into the main land and islands of Spanish America. In 1713, the celebrated *assiento* treaty with England, for 30 years, was concluded at Utrecht; (Great Britain afterwards gave up the trade to the South sea company). By this contract, the English, among other privileges, obtained the right of sending a *permission* or *assiento ship*, so called, of 500 tons, every year, with all sorts of merchandise, to the Spanish colonies. This led to frequent abuses and contraband trade; acts of violence followed, and, in 1739, a war broke out between the two powers. At the peace of Aix-la-Chapelle, in 1748, four years more were granted to the English; but in the treaty of Madrid, two years later, 100,000 pounds sterling were promised for the relinquishment of the two remaining years; and the contract was annulled.

ASSIGNAT; the name of the national paper currency in the time of the French revolution. Four hundred millions of this paper money were first struck off by the constituent assembly, with the approbation of the king, April 19, 1790, to be redeemed with the proceeds of the sale of the confiscated goods of the church. August 27 of the same year, Mirabeau urged the issuing of 2000 millions of new assignats, which caused a dispute in the assembly. Vergasse and Dupont particularly distinguished themselves as the opponents of Mirabeau. They saw that the plan was an invention of Clavière (of whose work the speech of Mirabeau was only an extract), to enrich himself and his adherents; that it would tend to put the rich usurers

in possession of the wealth of the nation, which would be insufficient to redeem the assignats, particularly if they were increased. Among other arguments, Mirabeau maintained the expediency of the measure he proposed, on the ground that the holders of assignats would necessarily support the new constitution, which was the only guarantee for the redemption of the assignats. His exertions were seconded by Pethion, and 800 millions more were issued. They were increased, by degrees, to 40,000 millions, and the currency, after a while, became of no value. A further account of this paper money is given in the article *Mandate*.

ASSIGNATION; a Russian paper money, used since 1769. Its loss of value, since 1787, has diminished the worth of rubles. Regularly, under the term *ruble*, is understood *assignment-ruble*. There are assignments of 5, 10, 25, 50 and 100 rubles. In 1809, 4 rubles-assignment were paid for 1 ruble silver money. The value fluctuated till 1818, when the silver ruble was fixed at 375 kopecks: in 1825, it stood at 372 kopecks.

ASSINIBOIN; a large river of North America, in the U. States and the British territories. It flows into the south end of lake Winnipeg. It is formed by two rivers, which unite about 50 miles from the lake. The eastern branch, called *Red river*, rises near the head waters of the Mississippi. The western branch, the *Assiniboin proper*, rises about lon. 104° W., lat. 52° N. Both are navigable for canoes to their source. The country between these rivers, and to the south, is a continued plain, with little wood; the soil, sand and gravel, producing a short grass. The north-west company have several trading establishments on the A.

ASSINIBOINS; an Indian tribe, in the western part of N. America, on the Assiniboin river, near the Rocky mountains. Their number is said to be 4200.

ASSIZES. (See *Assizes*.)

ASSISI; a small town in the papal dominions, 20 miles from Spoleto, on a hill, in one of the most charming parts of Italy. It is the see of a bishop. It is famous as the birth-place of St. Francis d'Assisi, and for the splendid church built over the chapel where St. Francis received his first impulse to devotion. This church is one of the finest remains of the architecture of the middle ages in the Gothic style. A. lies in lon. 12° 30' E., lat. 43° 3' N.

ASSIZES; I.; the name given in France, and in Lower or Norman Italy, to assem-

blies which were common in the middle ages, and to the courts for the administration of justice to vassals and freemen. After Godfrey of Boulogne had taken Jerusalem, in 1099, he adopted, for his two courts of justice, a code of laws drawn from the ordinances established in these assemblies: hence this remarkable collection was styled *Assises de Jerusalem* (French edition by La Thaumassière, Bourges, 1690, folio. See Bernardi's *Hist. des Droits Franç.*, 1816).—II. After the conquest of England, the term was introduced from Normandy. It is still used to signify the sessions of the courts, held annually, in every county, by the judges. In disputes concerning property, Henry II gave the contending parties the right of deciding their difference by a trial before the grand court of assizes, or by combat. The grand court of assizes consisted of all the knights in the county; the inferior court of assizes, which decided questions relating to possession, of 12 freemen. From these the jury took its rise. Twelve judges, who are members of the three highest courts in England,—the king's bench, the court of common pleas and the court of exchequer,—thrice in every year, perform a circuit into all the counties (being 40) into which the kingdom is divided, to hold these assizes, with the exception of the four northern counties, where they are held only once a year, and London and Middlesex, where they are held eight times. (*Bl. Comm.* iv. 269.) Eight other judges, appointed for the purpose, who are called *Welsh judges*, do the same duty for Wales. At these assizes, all the justices of the peace of the county are bound to attend, or else are liable to a fine; and also all the persons who have been summoned as grand jurymen or petit jurymen, by the sheriff. Upon these occasions, the court is opened with considerable pomp. The judges are conducted to their seats at the tolling of a public bell, and divine service is performed in their presence. The presiding judge directs the court to be opened, and, when the grand jury is duly impanelled and sworn, which is generally composed of the most respectable men of the county, he makes a public address to them, respecting the duties of their office, and the crimes which are to come before them for consideration. At these assizes, the judges sit under five separate commissions, some of which relate to civil and some to criminal causes or business. The *first* is the commission of *assize*, from which the session derives its name, by

which they are authorized to take assizes in the several counties; that is, to take the verdict of a peculiar sort of jury, called an *assize*, and summoned to decide certain cases respecting the titles to land. This class of causes is now obsolete, the trial of such land titles being now had in other and more modern forms of action. 2. The commission of *nisi prius*, as it is called, which empowers them to try all questions or issues of fact, issuing out of the courts in Westminster hall, and which must be tried by a jury from that county wherein the cause of action arises. These issues are, strictly, triable in the courts at Westminster, by a jury returned there from the county. But there is a proviso, *nisi prius*, "unless, before" the term assigned for trial at Westminster, the judges of assize come (as they are sure to do) into the county in question, and then the commission authorizes such trial by the judges of assize. (*Bl. Comm.* iii. 60.) These commissions are of a civil nature; but the judges of assize have also, by virtue of several statutes, a criminal jurisdiction in certain special cases. 3. The commission of *oyer and terminer*, to hear and determine all treasons, felonies and misdemeanors committed within the county. By virtue of this commission, they can proceed only upon an indictment found at the same assizes by the grand jury. 4. On this account, they have another commission, of *general gaol delivery*, which empowers them to try and deliver every prisoner, who shall be in gaol when the judges arrive at the circuit town, whenever or before whomsoever indicted, or for whatever crime committed. (*Bl. Comm.* iv. 270.) 5. The commission of the *peace*, by which they are empowered to do all things necessary or proper, according to the English laws, to preserve public tranquillity, to suppress crimes, and to arrest offenders. (*Bl. Comm.* i. 350, 351.) In this manner, and by these means, the gaols are, in general, cleared, and offenders tried and convicted, or acquitted, at least every half year. In America, there are no courts, or sessions of courts, which are technically called *assizes*. The judges, however, perform the same duties in the counties, within their respective circuits and jurisdictions, as the English judges, and, generally, in the same manner, that is to say, according to the course of the common law. The American judges have not, like the English, any special commissions. Their commission is single, and appoints them to the office.

But the general and public laws mark out and define their duties and authorities, whether general or special, and these duties and authorities are generally subject to be altered and changed by the legislative authority. In general, however, the duties and authorities of the judges of the higher courts are very similar to those of the judges in England. The manner of proceeding, except that it is more simple and unostentatious, resembles very much that of the English courts. Matters of fact, in criminal cases, are tried by a jury, upon an indictment found by a grand jury. And in civil cases, also, matters of fact, in common law-suits, are tried in the same manner. The sessions of the courts are usually called *terms*, and, generally speaking, the causes are tried before the courts of the county in which they are commenced, without having been sent there by a record from a court sitting in another county.—Since 1808, there have been assize courts in the judicial system of France. With the English institutions, however, they have scarcely any thing in common but the name. The administration of the penal laws belongs to the worst part of the ancient constitution. It united the two opposite evils of torture, which is often applied only to make the punishment of death more severe, and of capital punishment, inflicted upon suspicion. The higher and lower courts of France were distinguished from those of every other country by a spirit of dark and thoughtless cruelty, of which the 18th century presents a series of the most shocking instances. One of the first labors of the constitutional government, in the revolution, was a reform of this part of the constitution. The English institutions, particularly that of trial by jury, were taken for precedents. The administration of justice, in civil causes, was committed to circuit courts and courts of appeal (on the abolition of the ancient institutions); and, for the disposal of criminal cases, a law was enacted, Feb. 25, 1791, establishing, in every department, a criminal court, which consisted of a president and three other judges. No one of these officers was appointed by the executive government, but an attorney of the crown was attached to every court. The president and the public prosecutor were chosen by the electors of the department, and the members of the district courts performed, in succession, the duties of judges. This system remained substantially the same till the introduction of the consular gov-

ernment: the right of appointing these officers was then transferred to the first consul. By the constitution of the criminal courts, adopted in 1808 (*Code d'Instruction Criminelle*), permanent criminal courts were again abolished, and the administration of the penal laws was committed to the courts of appeal, who are to decide upon the propriety of having a trial in any given case. The public hearing and decision are referred to a special court (*cours d'assises*) and a jury. This latter tribunal is to consist of a judge of the high court, who shall act as president, and the four senior members of the district or county court (a court of original jurisdiction), in whose precinct the cause originated. Inferior violations of the police regulations are tried before the mayors (*maires*) and the justices of the peace, and those involving some penal law, before the district courts. The process, in the French assizes, is as follows:—Every French tribunal of original jurisdiction has a *juge d'instruction*, so called. It is his business to examine into the circumstances of every crime of which he is informed by the state advocate (see *Advocate of the Crown*), the police officers or private individuals. He traces out the act and the perpetrator amid every winding, summons witnesses, examines documents, brings forward and records the testimony. Finally, he refers the cause, verbally, to the tribunal which has original cognizance of it, in private session (*en chambre de conseil*). If facts and circumstances satisfy this tribunal that the accused is innocent, or, from the nature of the case, that proof of guilt is not to be expected, he is acquitted. If the offence alleged against him is found to be not of the highest class, *crimes*, but of an inferior kind, *delits*, which are defined to be *infractions d'un ordre inferieur punies seulement de peines correctionnelles ou de police*, it is referred to the *tribunaux correctionnelles*; if it be a mere infringement of the rules established for the sake of good order, *contravention*, it falls within the jurisdiction of the common police authorities. If the previous examination raises a probability of the guilt of the accused, the whole cause is referred, in the case of a *crime*, technically so called, with an explanatory report, to the high court (*cour royale*). This body deliberates on the subject (*en chambre de conseil*), and hears the arguments of the attorney-general, and, if the act alleged is found to be criminal, and capable of being proved, a formal accusation is drawn up,

and the culprit subjected to a special trial, to fix the degree of his guilt (*arrêt des renvois aux assises*). The courts for the trial of criminal cases hold their sessions, in each department, at least once every three months, and dispose of all cases which have accumulated during the vacation. The institution of a jury rests upon the liberal principle, that no individual servant of the state can lawfully have power over the life and death of a citizen; and that a power so important ought rather to be committed to a number of well-qualified men, chosen from the midst of the nation, who shall return, at the close of the session, to the same rank which they held before. Four days, at least, before the opening of the assizes, the præfect communicates to the president of the assizes a list of 60 persons in the department, who are eligible to the office of jurymen. Every jurymen is required to be, at least, 30 years of age, and enjoy all the rights and privileges of a citizen: it is also required, that he should be a member of the *college electorale*, or one of the 300 inhabitants in the county who pay the highest taxes; a doctor, licentiate, or corresponding member of some literary society, recognised by the government; a notary or a licensed banker, an exchange broker, a merchant or trader of the first or second class, an officer of the civil service, with an income of, at least, 4000 francs per annum; or he must have a special qualification. Ministers of government, præfects, sub-præfects, judges, state-attorneys and clergymen, and every one who has before been engaged officially or privately in the criminal cause, are wholly excluded from this number. The president of the assizes, before mentioned, by virtue of his *pouvoir discretionnaire* (discretionary power), selects 24 persons from this list of 60. He obtains, likewise, a list of all eligible persons in the place where the assizes hold their session, that, in case the 36 remaining jurymen should be prevented from attending, so many may be added, that, at least, 30 may be present at the sessions. The state's attorney then appears before the assizes as an accuser in behalf of the public, and the accused with his advocate: the accused is previously furnished, in writing, with his accusation, the day of trial, a copy of the documents to be used, and the names of the witnesses and jury. Both the attorney-general and the accused have a right to reject some of the jury, and 12 are chosen by lot out of those that remain. After they are chosen,

they take their seats upon a sort of stage, and the doors are thrown open, that their proceedings may be subject to public scrutiny. The president now administers the oath to the 12 jurymen: then the accusation and the accompanying documents, including the observations collected on the spot where the offence was committed, are read. The attorney for the government sets forth the essential points in the accusation, which are investigated with reference to the attendant circumstances, and the *corpora delicti*. The evidence on both sides is then read from the record of the former trial, but the question of guilt or innocence is determined by the oral testimony given in at the time. Moreover, the rest of the judges present, the jury, the state's attorney, the accused and his advocate, also the party who complains of the injury, have full liberty to propose further questions to the witnesses. When the examination is concluded, the state's attorney, the complainant and the advocate, and, if he wishes it, the accused, speak, in succession, upon the question at issue, usually twice each. The witnesses are often questioned anew in regard to any doubtful expressions, and, if every thing necessary for the sentence is accomplished during the session, the president, at the same session, declares the process finished. The presiding officer then briefly sums up the evidence on both sides, and gives the jurymen a written copy of the points to be decided. Upon this, they retire to confer, and, on their return, declare publicly the result of their deliberations. If only seven out of the twelve jurymen bring the accused in guilty, the judges take up the question, and, if the majority of the judges coincide with the minority of the jury, the accused is acquitted. If all the judges are in favor of his acquittal, and the whole or more than seven of the jury are in favor of his condemnation, the cause is deferred till the next session, at which it is finally decided. If the majority of the jury are for the acquittal of the accused, the president orders him to be set at liberty, unless some other accusation demands his further detention. If the accused is brought in guilty, a new question arises, relating to the punishment suitable to be inflicted, or the satisfaction to be made to the party injured. Upon this the judges agree among themselves, and then assign the grounds of their decision. Against this sentence no appeal can be made, except to the court of cassation. (q. v.) This court receives the peti-

tion of the appellant as well founded, if a want of substantial validity, or an error in form, is pointed out, or if the sentence has manifestly been passed in violation of some existing law; and they refer the cause, for decision, to another court of assizes.

ASSONANCE, in rhetoric and poetry; a term used when the words of a phrase or verse have the same sound or termination, and yet make no proper rhyme. This is usually a fault in English: the Romans sometimes used it with elegance. The Latins call this *similiter desinens*; the Greeks, *δροισιήλευτον*.

ASSONANT RHYMES is a term particularly applied to a kind of verses, common among the Spaniards, where the vowels only are required to rhyme; as, *ligera, cubierta, tierra, mesa*, may answer each other in a kind of assonant rhyme.

ASSUMPSIT, in law, is an action to recover a compensation in damages for the non-performance of a *parol* promise; that is, a promise, whether verbal or written, not contained in a deed under seal. For breach of a promise of the latter kind, *assumpsit* will not lie; but the proper remedy is by action of covenant or debt. The word *assumpsit* (Latin) means *he undertook*, and has been taken as the name of this action, from its occurrence in declarations; i. e., formal statements of the plaintiff's cause of action, when these were in Latin. The common law adopts the maxim, that a mere nude agreement and undertaking, without any *quid pro quo*, will not constitute a binding contract. This maxim is commonly said to have been borrowed from the civil law, where we find it laid down, that *ex nudo pacto non oritur actio*: but this seems rather to have referred to agreements without certain formalities. (See Fonblanque *On Equity*, i. p. 326.) What our law requires, in order to sustain a promise, is termed a *consideration*; and it must be either a benefit to the party promising, or to some third person, in whom he takes an interest; or detriment sustained by the party to whom the promise is made, at the request of the party making it. The degree of benefit or detriment, or its relative proportion to the thing promised, is immaterial. A promise in remuneration of an act which the party is bound to perform, as a promise to a sailor of extra pay for extraordinary exertion in extreme peril of the ship, is void. The law regards such exertion as the sailor's previous duty; the *consideration*, therefore, for the promise, fails. *Assumpsits* are of two kinds, *express* and *implied*; the former

are where the contracts are actually made, in word or writing; the latter are such as the law implies from the justice of the case; as, for instance, if I employ an artificer to do any work for me, the obvious justice of my paying him a reasonable sum for that work, when done, raises an implication, in the understanding of the law, of a promise on my part to pay him.

ASSUMPTION; a city in Paraguay. (See *Asuncion*.)

ASSUMPTION is the festival by which the Roman and Greek Catholic churches celebrate the miraculous ascent of the Virgin, on the 15th of August. One of Raphael's earlier pictures represents the empty coffin in which, according to the Catholic tradition, flowers were found after Mary had ascended to heaven. The picture is now in the Vatican.

ASSURANCE. (See *Insurance*.)

ASSYRIA; a kingdom of Asia, formerly of great celebrity. Its limits were different at different times. A., originally, was bounded on the N. by mount Niphates and Armenia the Greater; on the W. by Mesopotamia; on the S. by Susiana; and on the E. by Media. Ashur is said to have founded it. Its most famous monarchs are Ninus (q. v.) and his widow and successor, Semiramis. Ninus subdued the Babylonian, the Median and several other kingdoms, and united them to his own. In the time of Sardanapalus (about 900 years before the Christian era, or, according to Volney, 717), Arbaces, governor of Media, made himself master of the kingdom of A. Herodotus, whose correctness has been proved by Volney, fixes the duration of the Assyrian empire in Upper Asia at 520 years. It was then divided into three kingdoms—the Median, Assyrian and Babylonian,—the principal part of which were before included in the Assyrian. Soon after, A. rose again to a resemblance of its former splendor, while Media and Babylon again yielded to its superiority. Salmanassar was then the sovereign of the empire, and Nineveh the capital. About 700 B. C., Media again revolted. Cyaxares, the king of Media, afterwards forming an alliance with Nabopalassar, governor of Babylon, they marched against Nineveh, and destroyed it, B. C. 606. A. now became a province of Media; and Babylon, by the victories of Nebuchadnezzar, was made a powerful kingdom, B. C. 600. About 550 years before the Christian era, the three kingdoms were united by the victorious Cyrus (q. v.) of Persia.

ASTARTE; a Syrian goddess, probably

corresponding to the *Semele* of the Greeks and the *Astaroth* of the Hebrews. According to Lucian, she had a very ancient temple in Phœnicia. Some also believe her to be the same with *Here* (the *Juno* of the Romans), and others with *Aphrodite*.

ASTERIA, a gem, sometimes called the *cat's eye*, or *oculus felis*. It is a beautiful stone, and somewhat approaches to the nature of the opal. It is very small, and has only two colors, a pale-brown or white. It is hard, and will take a fine polish. The stone is found in the East and West Indies and in Europe. In Bohemia, they are often found imbedded in the same masses of jasper with opal.

ASTERISK (a small star); a sign to refer to notes. The ancient critics made use of this sign, or of a cross (*obelus*), to point out an incorrect passage in the text of an author. Others used the same mark as a sign of the correctness of a passage.

ASTHMA; a frequent, difficult and short respiration, joined with a hissing sound and a cough, especially during the night, and when the body is in a prone posture.

ASTLEY, John; a native of Wem in Shropshire, who adopted the profession of a portrait painter, and was a pupil of Hudson, the master of sir Joshua Reynolds. He is known by his marriage with lady Daniel, a lady of large fortune, whom he had painted. He died in 1787.

ASTLEY, Philip; the founder of the royal amphitheatre near Westminster bridge, London, and the author of some literary productions. He was born at Newcastle-under-Line, in 1742, served in the English cavalry, in Germany, for seven years, and, on his return, began to exhibit equestrian performances. In 1780, he erected a building which he called the *amphitheatre riding-house*, and for which he subsequently procured a license. He erected, afterwards, several amphitheatres in England and Paris, and wrote a treatise on horsemanship, also two works of a military character. He died at Paris, Oct. 20, 1814, aged 72.

ASTRACHAN, or **ASTRAKHAN**, a viceroyalty of the Russian empire, extending from 46° to 52° N. lat., containing 293,000 sq. miles, with 2,600,000 inhabitants, is divided into three governments—Astrakhan (72,600 sq. miles; 223,000 inhabitants), Saratov and Orenburg. It is bounded on the N. by the country of the Bulgarians and Bashkeers; on the S. by the Caspian sea; on the W. by the Wolga, which separates it from the Nogai Tartars and the Cossacks of the Don; and on the E.

by a long chain of mountains, which divides it from Tartary. The summer is long, and very hot; the winter lasts three months, and is very severe. The rich and fertile soil is not cultivated by the Tartars. On the W. and S. side are large heaths, which afford fine salt in abundance. The capital, Astrakhan, E. lon. $48^{\circ} 2' 15''$, N. lat. $46^{\circ} 21' 12''$, is on the island Seitza, in the Wolga, about 34 miles from the entrance of this river into the Caspian sea. It is the see of a Greek archbishop and of an Armenian bishop; has 25 Greek, 2 Armenian churches, 26 Tartar mosques, an Indian temple, a high school, a seminary for priests, a botanical garden, and many manufactures. The city, with the suburbs, is $4\frac{1}{2}$ miles in circumference. It contains, in 3800 houses, 30,000 inhabitants, consisting of Armenians, Tartars, Persians and Hindoos, besides 20,000 people who spend some time in the year there, on account of the fisheries. The houses are of wood, mean and inconvenient. The environs are covered with gardens and vineyards. The sturgeons, which are taken in the Wolga, are salted, and carried through all parts of Russia. In winter, they are transported without salting. The trade in caviar is of some importance. Besides sturgeons, seals and other fish are caught here. From July to Oct. large swarms of locusts are not unfrequent. Formerly, Astrakhan had commerce with Khiwa and Bukhara: at present, its trade is limited to Persia and the interior of Russia, but is still considerable. 60 vessels and 7 caravans arrive here annually. The exports are leather, linen, woollen cloth, and other European manufactures. Astrakhan imports from Persia silk ribbons worked with gold for sale in Poland, also silk and cotton stuffs, rice, raw cotton, rhubarb and some other drugs; chiefly, however, raw silk. The capital of the Ural-Cossacks, Ural-skoi (containing 4000 wooden houses and 18,000 inhabitants), belongs also to this government.

ASTROGNOSEY (from ἀστήρ, a star, and γινώσκω, I know); the science which teaches the constellations, ranks, &c., of the stars. (See *Astronomy*.)

ASTROLABE (planisphere, *analemma*; from ἀστήρ, a star, and λαμβάνω, I take); an instrument for measuring the degrees, minutes, and sometimes even the seconds, of angles. It generally consists of a horizontal circular plate of metal, having those divisions on its extreme circumference. The utmost accuracy may be obtained in the measurement of angles,

by means of a peculiar contrivance (vernier), which consists of an arc, on which the smallest divisions of the circle are subdivided as minutely as is requisite in the observations, and as the skill of the maker can graduate it. This arc is movable, so that it can be fitted to the divisions of the circle. Fixed to this circle are two indexes, provided with telescopes. One of them is immovable; the other turns round the centre of the instrument. By taking sight from the vertex of the angle, at two fixed points in the direction of its sides, the arc, which measures the angle, is intersected on the circle of the instrument. In modern astronomy, this instrument is no longer used, except in the practical applications of geometry. The first application of the astrolabe to navigation was made by the physicians Roderic and Joseph, and Martin Behaim of Nuremberg, when John II, king of Portugal, desired them to invent a method of preserving a certain course at sea. They taught how to discover the situation of a vessel at sea without the use of the magnetic needle.

ASTROLOGY; an art which pretends to foretell future events, especially the fate of men, from the position of the stars. It is among the oldest superstitions in the world, and, as Bailly conjectures, with great apparent probability, it owes its origin to the influence of the heavenly bodies, particularly the sun and moon, on the seasons, the weather, and the fertility of the earth. This led to the idea that these luminaries were created only for the use of the planet we inhabit, and that, as they have an influence upon the earth, they probably have some connexion with the destiny of individuals and of nations. The Egyptians have a tradition that Belus founded a colony from Egypt on the banks of the Euphrates, in Asia; and this colony was furnished with priests, according to the custom of the mother country, who were free from public taxes, and were called, by the Babylonians, *Chaldees*. Hence it may be conjectured, that astrology was invented by the Egyptians; among whom the inhabitants of Thebes particularly claimed the honor of the invention. Most of the ancient writers are agreed, that astrology was communicated by the Chaldees to other nations. From this circumstance, astrologers used to be called *Chaldees* by the ancient writers; sometimes *Genethliaci* (see *Genethliacon*); and, in later times, *Chaldee* has been synonymous with *astrologer*. (See *Horoscope*.) The great antiquity of this art may be inferred from

the fact, that most astrological observations are founded on the position of the stars in reference to the horizon, which was the first circle recognised in the heavens; also from its being mentioned in the Mosaic history. As astrology, in later times, fell into disrepute on account of the cupidity and fraud of its practitioners, these assumed the name of *mathematicians*, by which they were generally known at the time of the Roman emperors. They caused so much trouble, that Tiberius at length banished them from Rome. The law relating to this banishment of astrologers, however, makes a distinction between geometry and the mathematical, i.e., astrological, art.—However objectionable astrology may be in itself, it has been of essential use to astronomy. It has excited more interest in, and led to more careful observations of, the heavenly bodies. During the middle ages, astrology and astronomy were cultivated in connexion by the Arabs, and their works on the subject are still extant. Pico of Mirandola, who manfully combated the errors of astrology towards the close of the 15th century, found but little attention paid to his labors. Even in the 16th and 17th centuries, astrology could boast of literary men, such as Cardano, and even Kepler, among its adherents. The Copernican system, the correctness of which experience has been continually confirming, has shaken the foundations of the ancient science; but the disease is not wholly eradicated. A full account of astrological terminology is given in Lalande's *Astronomy*, vol. i. (2nd edition), sect. 497.

ASTRONOMY (from *ἀστρον*, a heavenly body, and *νόμος*, law) is the science of the heavenly bodies and their motions. It is founded on observation, but it receives its last perfection from calculation. What an interval from the imperfect notions of the Chaldean shepherd and the Phœnician mariner to the Celestial Mechanics of a Laplace! How many centuries of observations were necessary to render the motion of the earth suspected! How slow the progress to the laws of planetary motion, and from those laws to a universal principle of gravitation! Founded on geometrical considerations, this great principle explains all the celestial phenomena in their minutest details: there is not a single seeming irregularity which does not necessarily result from it. Out-running the cautious advances of observation, it descends from causes to phenomena, and renders astronomy a great me-

chanical problem, of which the only data necessary are the motions, figures and magnitudes of the heavenly bodies. That part of the science which relates to their motions, magnitudes and periods of revolution, is called *descriptive astronomy*; that part which explains the causes of their motions, and demonstrates the laws by which those causes operate, is called *physical astronomy*. From a simple view of the heavens, we see stars, with which the blue vault above us is sprinkled, appear regularly in a certain point, rise with a uniform motion to a certain elevation, and then descend, and disappear in the opposite quarter of the heavens. This motion is common to all the heavenly bodies, and is performed in equal times, though they appear to pass through arcs of very different magnitudes. At a certain point, this motion appears to cease: this point is called the *pole*, which signifies a pivot, on which the heavens appear to turn. The celestial vault being conceived as forming a sphere, there are two of these points: that which is visible in our hemisphere is the north celestial pole; and that which is visible in the opposite hemisphere is the south celestial pole. The circle which bounds our view on all sides is called the *horizon*, or *boundary*: its plane passes through the centre of the earth: it is also called the *celestial* or *rational horizon*, to distinguish it from the *sensible horizon*, which limits the view of objects on the surface of the earth. A circle perpendicular to the horizon, passing through the poles, is called the *meridian*. It divides the celestial hemisphere into two equal parts, so that the heavenly bodies, at the moment they arrive at this circle, are at the middle of their apparent course: the passage of the sun over this circle determines the instant of noon. The period occupied by the stars in passing from this circle through the celestial sphere, and returning to the same point, is called a *sidereal day*, and is a little less than 24 hours. As we remove from the poles, the arcs described by the stars gradually increase, and at an equal distance between them, we find the largest, which, dividing the celestial sphere into two equal parts, is called the *celestial equator*. A line drawn from the centre of the globe, through the place of the observer, ascertains a point in the heavens, perpendicularly over his head, which is called the *zenith*: the same line produced in the opposite direction determines a point in the opposite part of the heavens, which is called the *nadir*. We have thus far spoken of the ascend-

ing and descending of the heavenly bodies in the heavenly vault. But does all this train of worlds actually move round the earth daily? Or can it be proved that our senses deceive us, and that this apparent motion is an illusion? The true cause of these appearances is the motion of the earth round its own axis, from W. to E., in the space of nearly 24 hours. A moment's reflection will convince us that the horizon of the observer, as it turns along with him during the rotation of the earth, must advance towards the stars successively, so as to give them the appearance of gradually approaching the horizon; as a vessel leaving the shore causes it to appear to recede to a person on board. As the meridian turns at the same time, it must arrive successively at the same stars, which will then appear to have ascended to the middle part of the course they describe above the horizon. As soon as the star touches the western verge of the horizon, it appears to set, and ceases to be visible until the motion of the earth again brings it back on the eastern boundary of the same circle. But has the earth no other motion? Every one must have observed that the sun, besides its apparent diurnal motion, which it has in common with all the stars, appears in the course of a year to change its place in a twofold manner. First, it appears to rise and sink alternately towards one or other of the poles; and, secondly, if we observe its place among the stars, it appears either that the sun recedes daily towards the east, or that the stars advance daily towards the west; for the stars, which we see at one time set immediately after the sun, are, on the following evening, lost in his rays: some days after, they reappear in the east, and their rising precedes daily more and more that of the sun. At last, after a year, or about 365 days, the sun and stars are again seen in the same relative position. The complexity of these motions is increased by the confusion presented by the apparent motion of the other planets: sometimes they seem to be hurried along with great rapidity; at other times they appear stationary, and, at still others, retrograde. All this seeming chaos of motions is reduced to order by a knowledge of the fact, that, while the earth turns on its axis, it advances, at the same time, in absolute space from west to east, and performs an entire revolution round the sun in the course of a year, in a plane inclined to the equator. The circle which the centre of the earth describes in this revolution,

and which is the apparent path of the sun, is called the *ecliptic*. The axis of the earth remaining always parallel to itself, the opposite poles will be directed towards the sun once in each revolution. When a pole is directed towards the sun, it receives more light and heat, and for a longer period, than at any other portion of the revolution. It is then the *summer solstice* in that hemisphere; the days are longest, the nights shortest, and the heat greatest. Six months, or, rather, half a year from that period, every thing is reversed; the same pole is turned from the sun; the light and heat is received in small quantities, and for a short period; the days are short, the nights long; the cold intense: it is the *winter solstice*. At two other points of the orbit, equidistant from each other and from the solstices, the poles are equally inclined to the sun; they receive an equal supply of heat and light, and during equal periods; the days and nights are equal all over the globe: it is the *vernal* or *autumnal equinox*. The diurnal rotation of the earth on its own axis produces, therefore, the alternation of day and night. The annual revolution round the sun, and the obliquity of the ecliptic to the equator, causes the changes of the seasons. The daily rotation of the earth produces, also, the phenomena of tides in the ocean and the atmosphere. (See *Tides*.)—Let us now take a more general view of the celestial phenomena. The discovery of peculiar qualities common to a number of heavenly bodies, has led to the formation of classes (see *Planets, Satellites, Comets, Fixed Stars*); or convenience of description has clustered them into groups with fanciful names (see *Constellations*); or their peculiar influence on human affairs has given a name to individuals (see *Sun, Moon, Earth, &c.*). At first view, the stars in general do not seem to change their relative positions; and, if they have particular motions, a long series of observations is necessary to render them sensible. But, by continuing to compare the heavens at different epochs, we perceive that some of them are distinguished by relative motions, and by the nature of the light which they transmit to us. These we call *planets*, that is, *wandering stars*, in distinction from those, which, maintaining always the same relative positions, are called *fixed stars*. The planets transmit to us a soft, mild, steady light, never exhibiting any change of color. They are opaque bodies, and their light is only a reflection of that which they receive from the sun, around which they

revolve in regular but unequal periods, turning at the same time on their axes. Their number now known is 11. We mention them in the order of their distances from the sun—Mercury, Venus, Earth, Mars, Vesta, Juno, Ceres, Pallas, Jupiter, Saturn, and Uranus, or Herschel. Five of these are visible to the naked eye, and were known to the ancients; five have been discovered in modern times by the aid of the telescope. Some of these bodies have smaller ones in their neighborhood, which revolve round them at the same time that they accompany them in their orbits of revolution round the sun, and turn on their own axes. The former are called *primary*, to distinguish them from these attendants, which are called the *secondary planets*, or *satellites*. The latter are opaque, like the former. The earth is accompanied by one, which is called the *moon*, Jupiter by four, Saturn by seven, with his remarkable ring, and Herschel by six. The interposition of one of the planets between the sun and an observer stationed on another planet, produces an *eclipse*. (q. v.) From time to time, small specks appear in the heavens, of a feeble lustre, moving slowly in the midst of the other stars. Gradually, as they approach nearer, their velocity increases; their light is more brilliant; and, after passing into the immediate vicinity of the earth and sun, they recede again, and disappear in the distance. These are called *comets* (which signifies *hairy bodies*) from the peculiar luminous train by which they are attended, and which the ancients called *hair*, and the moderns, *tail*. These bodies, long the objects of terror to man, as the harbingers of pestilence and war, are now known to be subject to the common laws of nature, and to revolve round the sun in regular periods. The sun, the 11 primary and 18 secondary planets, and the comets, constitute the *solar system*. Far beyond these limits, at an immeasurable distance, lie the fixed stars, infinite in number, of a brilliant lustre, and constantly changing color. Their distance, and the brilliancy of their light, with the fact that their magnitudes remain always the same, render it probable that they are luminous bodies, like so many suns. They have been formed into groups of arbitrary extent, under the names of gods, men, beasts, &c., which are called *constellations*. Of these the ancients knew 48; the moderns have increased the number to more than 100. It should be understood, that the stars, thus grouped together under one name, have no connexion with each other, but

are so arranged for convenience of description. The first astronomers, in order to estimate better the apparent motion of the sun, referred it to those constellations through which it appeared to pass, and which are 12 in number. They are, in Latin, Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricornus, Aquarius and Pisces. The zone, or band, which contains them, is called the *zodiac* (q. v.), and each constellation is called a *sign of the zodiac*. In consequence of a motion of the earth's axis, the constellations no longer correspond to the same points of the orbit; but as we confine the name *signs* to the 12 divisions of the circumference of the circle, which measures the whole revolution of the earth, and as these divisions do not change, the vernal equinox always corresponds to the first point of the sign Aries, the summer solstice to the first point of the sign Cancer, the autumnal equinox to that of Libra, and the winter solstice to that of Capricorn, although the constellations, which bear these names, have ceased to be connected with these seasons. (See *Precession of the Equinoxes*.) To penetrate yet farther into the heavens, it is necessary to aid the imperfection of vision by the telescope, which discovers to us millions of stars in the infinity of space. In a clear night, turn your eyes to the irregular zone of whitish light: it is the *milky way* (q. v.): you will find it to consist of an infinite number of stars, whose inconceivable distance renders their light too feeble to make a distinct impression on the naked eye. Continue your examination, and you will observe luminous spots of an undefined shape: these are *nebulae*, some of which a further observation will show you to be assemblages of stars, like the milky way, while others will appear to consist of an unbroken mass of whitish light. You will find, also, some stars to be *variable*, undergoing a periodical change of brightness: some, which appear single to the naked eye, will be found to be *double*, *triple*, &c., and to revolve round a common centre of gravity by twos, threes, &c. Compare your observations with those of your predecessors, and you will find that new stars have appeared at different times, and afterwards disappeared, and that others have experienced a change in the intensity of their light. Of the actual magnitude and distance of the stars we know nothing. The diameter of the earth's orbit is 200,000,000 miles; yet we can detect no difference in their ap-

parent places, viewed from the opposite points of this diameter: a change of place amounting only to a second would be detected by the accuracy of modern observations: geometrical considerations, therefore, prove that the nearest star cannot be less than 20 billions of miles distant from us. After considering the apparent motions of the heavenly bodies, and the real motions which give rise to these appearances, physical astronomy rises to the explanation of the cause, and the investigation of the laws, of the celestial phenomena. Applying the laws of motion to the heavenly bodies, it discovers a force operating throughout, which is called *attraction*, the amount of which is directly as the quantity of matter, and inversely as the squares of the distances. By the application of this general principle, it descends to those more refined inequalities, which, owing to their minuteness, or the length of their periods, would escape or mislead the observer unassisted by theory.

ASTRONOMY, history of. The history of this science begins with the most remote antiquity. The starry heavens must have been one of the first and most striking objects which attracted the attention of man, and his immediate wants compelled him to attend to the revolution of the seasons, the changes of the moon, &c. The most ancient astronomical observations known to us are Chinese. Such a one, mentioned by Montucla (see p. 455 of his work, vol. 1, quoted below), viz., a conjunction of Saturn, Jupiter, Mars, Mercury and the moon, occurs almost 2500 years before our æra. The Chaldeans also boast of some very ancient astronomical observations, but Ptolemy (q. v.) only mentions two lunar eclipses observed by them, about 700 B. C. Still less importance does he ascribe to the astronomical knowledge of the Egyptians, although the placing of their pyramids in a position exactly facing the four cardinal points of the compass, the zodiacs discovered in Egypt (see *Zodiac*), and other circumstances, are by no means calculated to give us such a disadvantageous idea of it. The theory of Bailly, a later historian of astronomy, respecting a nation settled in Middle Asia, and possessed of profound astronomical knowledge, seems as unfounded as our acquaintance with Indian astronomy is slight. The science made greater progress in Greece, and the Greek philosopher Thales (q. v.), born 640 B. C., calculated a solar eclipse. Pythagoras, also, seems to have been possessed of astro-

nomical knowledge. After him, the Athenian Meton (433 B. C.) introduced the famous lunar cycle of 19 years, at the end of which time the new moon appears on the same day of the year as at the beginning of it, since 19 solar years constitute very nearly 235 lunations—a discovery which was then regarded as so important, that the calculation was engraved in letters of gold, whence the number, which marks the year of the cycle, is still called *golden*. Great progress was made in astronomy under the Ptolemies, and we find Timocharis and Aristyllus employed, about 300 years B. C., in making useful planetary observations. But they were far surpassed, in philosophical spirit, by Aristarchus (q. v.) of Samos, born 267 years B. C., who, according to the indubitable evidence of Archimedes (see the remarkable passage in the beginning of *Avenarius*), taught the double motion of the earth around its axis and around the sun;* and about 100 years after him, Hipparchus (q. v.) determined more exactly the length of the solar year, the eccentricity of the sun's orbit, the precession of the equinoxes, and even undertook a catalogue of the fixed stars; *ausus*, as Pliny (*Hist. Natur.*, lib. 2, cap. 26) expresses himself, *rem etiam Deo improbam, annumerare posteris stellis, celo in hereditatem cunctis relicto*. From the time of Hipparchus, a chasm exists in the history of astronomy, till the commencement of the 2d century after Christ, when Ptolemy (q. v.) compiled a complete system of astronomy, in 13 books, which is best known under the name of *Almagest*, given it by the Arabians, who translated it into their language in 827, and which, as the Ptolemæan system of the world, notwithstanding its many errors, exposed in the article *Universe, system of the*, in this work, has maintained its value down to the latest times. Among the Romans, on the contrary, astronomy was never much esteemed; and no astronomical discovery had its origin with them; though it must be observed, that expressions occur in Seneca's *Quæstiones Nat.*, vii. 13, respecting comets, which are worthy of a riper age; and

* Aristarchus says expressly, 1st c., that the earth revolves in an oblique circle around the sun, and that the distance of the fixed stars is so great, that this circle can only be considered as a point in comparison; but he seems to have come to this conclusion, not as an astronomer, but as a Pythagorean, regarding fire (the sun) as the centre of the universe.—We take this occasion to correct the common but erroneous opinion, that Copernicus was indebted, for his system of the world, to this passage of Avenarius, as this book was not printed till after his time.

the service likewise deserves mention, which Julius Cæsar rendered, by his correction of the calendar, the details of which may be found in the article *Calendar*. But, with the irruption of the barbarians on one side, and the destruction of the Alexandrian library on the other, such a total stagnation occurred in the case of astronomy, as in that of the sciences in general, that we find no traces of astronomical study and observation, till the 9th century, among the Arabs, whose translation of Ptolemy's works has already been mentioned. Of their astronomers, the caliph Almamon and the princes Albategni and Thebith deserve to be named. Among the Moors who invaded Spain, there were Arabic scholars, who transplanted the science to that country. With the Mohammedan faith, Arabic learning was likewise introduced into Persia, the reigning prince of which, Ulug-Beigh, in the beginning of the 15th century, collected, at his capital, Samarcand, an assemblage of the most famous living astronomers. But we must not overrate the merits of the Arabian astronomers, since they confined themselves entirely to the system of Ptolemy, and confounded the science with the dreams of astrology; though, on the other hand, the benefits which they have rendered by valuable observations of the fixed stars (many of which, it is well known, still bear Arabic names), of eclipses, of the obliquity of the ecliptic (q. v.) &c., and by the preservation of ancient mathematical works, which have come to us in their translations, are not to be forgotten. Among the Christian nations, during this time, a deep ignorance generally prevailed, but the cultivation of the astronomical sciences was not entirely neglected. Thus the emperor Frederic II, who died in 1250, caused the *Almagest* (the Greek original being no longer extant) to be translated from the Arabic into Latin; and king Alphonso of Castile, about the same time, invited to his court several astronomers, and commissioned them to prepare a set of new astronomical tables, which, under the name of *Alphonsine tables*, have acquired much celebrity, but, in the 17th century, differed a whole degree from the true situation of the celestial bodies. We pass over several less famous names, in order to introduce those of the German astronomer and mathematician, George of Peurbach or Purbach, born in the Austrian dominions, in 1423, who published various valuable astronomical tables, such as the table of sines, from 10 to 10', and

a still more famous scholar, John Müller, born at Königsberg, in Franconia, and thence called *Regiomontanus*, from whom we possess the first good and complete Ephemerides. After him, a brighter light was shed over astronomy by Nicholas Copernicus (q. v.), born in 1473, who gave the science an entirely different aspect, exploded the Ptolemæan hypothesis, and, in its stead, substituted the Copernican system of the world, which, with a few modifications, is still prevalent, and universally acknowledged to be correct. He it was that gave the sun its place in the centre of the planetary system; who first conceived the bold idea, that the earth is a planet, like Mercury, Venus, and the rest, and moves, in common with them, in a circle around the sun; and who maintained that these circles (or, in conformity with subsequent corrections, these orbits, differing but little from circles) were sufficient to explain the most complicated motions of the other planets, and even their apparent cessations of motion and retrogradations, which had hitherto baffled all conjecture. How much freedom of spirit was required thus to rise superior to the prejudices of centuries, we are almost incompetent to judge, now that the truth of the system is settled; but his great countryman, Kepler, has depicted the spirit of the man, by a few energetic strokes, calling him *virum maximo ingenio et quod in hoc exercitio magni momenti est, animo libero*. His system did not, however, meet, immediately, with a general reception; and, while Rheticus and others were its advocates, some distinguished astronomers made objections to it, among which the imperceptibleness of any annual parallax of the fixed stars, which it seemed must necessarily result from the motion of the earth, was the one of most weight. The most distinguished of these opponents of the great Copernicus was Tycho Brahe (q. v.), born in Denmark, in 1546. He maintained that the earth is immovable, in the centre of the universe; that the whole heavens turn around it in twenty-four hours; that the moon, and also the sun, by virtue of their own motions, describe circles around the earth, while Mercury, and the other planets describe epicycles around the sun. (See *Epicycle*.) The principal authority that Tycho adduced in support of this opinion was, the literal sense of various passages of the Bible, where a total absence of motion is ascribed to the earth; but, although he did much injury to science by supporting this erro-

neous opinion, we are under infinite obligation to him for the great exactness of his observations, which opened to his pupil and assistant, Kepler (q. v.) of Wurtemberg (born 1571, died 1631), the way to the more accurate discovery of the form of the celestial orbits, and the true theory of the planets; for only eight minutes' difference between the position of the planet Mars, as calculated on the hypothesis of the circle, and its actual position, as observed by Tycho, gave this sagacious astronomer occasion, as he expresses himself, in p. 114 of his *Astronomia*,* "ad totam astronomiam reformatandam," since he derived from it the elliptical forms of the orbits of the planets (differing, however, but little from the circles of Copernicus), the sun being situated in one of the foci of the ellipse. Advancing in his glorious course, Kepler, moreover, demonstrated that, in each elliptical revolution of the planets around the sun, an imaginary straight line, drawn from the latter to the former (the *radius vector*), always describes equal areas in equal times; and, lastly, that, in the revolutions of the planets and satellites, the squares of the times of revolution are as the cubes of the mean distances from the larger body. These three important truths are comprehended under the name of *Kepler's laws*. About the same time, Galileo (q. v.), who died in 1642, accomplished another step towards the more accurate investigation of celestial mechanics, by his discovery of the laws of the descent of heavy bodies; and, although the Catholic church compelled this philosopher to abjure as heretical the doctrine which he had publicly promulgated respecting the motion of the earth, to which he had been led by his observations of the other celestial motions, made by means of the telescope, then first invented, this attempt to obstruct the march of intellectual improvement only served to show the impotency of such persecutions.† In the first 10 years of the 17th

century, there appeared, in Dantzic, Hevelius, who was distinguished for his observations of Mars; in France, Cassini, whose exertions in most of the branches of astronomy were highly successful, and who transmitted his industry and his energy to a son, grandson and great-grandson; and in Holland, Huygens, the famous inventor of the pendulum, and the precursor of the immortal Newton, in his investigations respecting celestial mechanics. Newton himself (q. v.), born in 1642, was engaged till a short time before his death, 1727, in producing an entire revolution in physical astronomy (see the *preceding article*), while, by his *Principia Mathematica Philosophiæ Naturalis*, he became the lawgiver of celestial mechanics, as Kepler had been of theoretical astronomy, by means of his *Astronomia*. Descartes had sought the cause of the motion of the planets around the sun, and of the satellites around the planets, in the rotatory motion of a subtle matter. Newton felt the defects of this hypothesis, and proved, with the superiority of true genius, that the elliptical motion of the planets was caused by the combined action of the attractive power exerting a force in the inverse ratio of the squares of the distances, and of an impulse originally communicated to the planets, which impulse, as may be demonstrated, continues forever in empty space. With Newton the laws of the heavenly bodies were completed, and he and Kepler have left to later times merely the developement of the truths which they established. By the application of their principles, several succeeding astronomers have gained a high reputation; e. g., Halley, by his theory of comets; Bouguer and Maupertius, by their exertions to determine the form of the earth; their countryman de la Caille, by improving the doctrine of refraction; the great German astronomer Tobias Mayer, by his lunar tables; Bradley, by the discovery of the aberration of light; also de l'Isle, Lambert, Euler and others. (q. v.)

* The title of this immortal work, containing the code of theoretical astronomy, is, *Astronomia nova, Astronomiæ, seu Physicæ Cælestis tradita Commentariis de Motibus Stellæ Martis, ex Observationibus Tychoonis Brahe, Jussu et Sumptibus Rudolphi II, Romanorum Imperatoris, etc., plurimum Annorum pertinaci Studio elaborata, Pragæ, a S. C. M. Mathematico Joanne Keplero* (1609, fol.).

† These persecutions have, nevertheless, been very recently repeated, and the public papers have related the following anecdote: About the beginning of the year 1820, the professor of astronomy at the academy *della sapienza* at Rome, signor Settele, submitted the manuscript of his astronomical lectures to the appointed authorities, soliciting per-

mission to print them. This was refused, "because he defended the motion of the earth around the sun"—a doctrine condemned by the Roman court, as contrary to the Bible, and which had already involved the immortal Galileo in the disgrace of recantation. Not discouraged by this, Settele applied to the inquisition, with the request that it would give an explanation of its own, adapted to the present state of science. The inquisition was silenced; permission was granted to print the book; but Settele was ordered to add in a note, "in conformity with truth," that the persecutions which Galileo had suffered were to be imputed not so much to his system as to the improper language used by him. This, however, is notoriously false.

In more recent times, Laplace, by his *Mécanique Céleste*, and Gauss, by his *Theoria Motus Corporum Celestium*, have completed the structure of Newton; while Zach, Lalande, Maskelyne, Bessel, Olbers, Piazzi, Encke, Delambre, Biot, Arago, Mechain, Herschel, &c., have enlarged, on all sides, the territory of the science. Thus Herschel's discovery of the planet Uranus and its moons, in 1781; Schröter's efforts to obtain a knowledge of the surface of our moon and of Venus; Piazzi's discovery of Ceres, in 1801; Olbers' discovery of Pallas, in 1803, and of Vesta, in 1807; Harding's discovery of Juno, in 1804; Olbers' and Encke's computation of the orbits of two comets; the recent measurements of a degree in France, England, Germany, Sweden; the perfection which has been given to astronomical instruments, by Ramsden, Troughton, Reichenbach, &c., are well known; and the combined industry of so many living astronomers allows us to hope for no less splendid results in the advancing improvement of astronomy.—On the advantages of this science, it can scarcely be necessary to dwell. "It need but be mentioned," says Gehler, "to excite emotions of grandeur; and the idea which it gives us of the immensity of the universe, and the power, wisdom and goodness of its almighty Author, must inspire men of the coldest feelings with sentiments of admiration. It is not necessary for us to point out the benefits which accrue from it to the human race, by enabling them to divide and observe the flight of time; its use in navigation, the determination of the situation of places on the earth, &c." By the aid which it affords to navigation, it exercises no small influence in the general improvement of the human condition. This science, moreover, unites the strictness of mathematical reasoning with an exalted feeling for the sublime and beautiful, and fills the mind both with confidence in itself, from its ability to calculate with certainty the career of distant worlds, and with a becoming humility in reflecting how small a part of the universe is our earth, and how brief its known duration, compared with the immense periods which enter into the calculations of astronomy. Young says,

An undevout astronomer is mad.

There have been, however, several astronomers who believed in no God; being led, by the contemplation of the necessary laws of the heavenly bodies, to the belief in a general, universal necessity.—German literature contains a great number of

popular works on astronomy, of which several are designed for ladies. Of the numerous works on astronomy, we shall only mention here the latest and most important manuals and elementary works: *Astronomie par de Lalande*, 3d ed., Paris, 1792, 3 vols., 4to. (there is an abridgment of it—*Abbrégé d'Astronomie par de Lalande*, Paris, 1795); *Astronomie Théorique et Pratique*, par Delambre, Paris, 1814, 3 vols., 4to.—a work important for professional astronomers; Schubert's *Theoretical Astronomy*, Petersburg, 1798, 3 vols., 4to., and the new French edition of the same work, 1822; Biot's *Traité Élémentaire d'Astronomie Physique*, 2d ed., Paris, 1810, 3 vols.; Laplace's *Exposition du Système du Monde*, 5th ed., Paris, 1824 (a general exposition of the results developed in the large work, *Mécanique Céleste*); Bode's *Illustrations of Astronomy* (which is confined to the less difficult propositions of geometry and astronomy) 3d ed., Berlin, 1808, 2 vols.: together with this work, we may mention Bürjass' *Manual of Astronomy*, Berlin, 1794, 5 vols., which requires, however, more extensive knowledge. Excellent, though very condensed, is Bohnenberger's *Astronomy*, Tübingen, 1811. Piazzi's Italian *Manual of Astronomy* is a good work. Among the English treatises are Woodhouse's *Elementary Treatise on Astronomy*, 1823, and Ferguson's *Lectures on Astronomy*, a popular work; also Vince's *Complete System of Astronomy*, 3 vols., 4to., with additions, 1814. To astronomers, practical and theoretical, Bessel's *Observations at the Observatory of Königsberg*, which have appeared in folio since 1813, are indispensable. Notices of astronomical tables may be found in the larger astronomical treatises mentioned. With respect to astronomical periodicals, Zach's *Monatl. Correspondenz zur Beförderung der Erd- und Himmelskunde*, with which is connected Lindemann's and Bohnenberger's *Astronom. Zeitschr.*, is continued under the title *Correspondence Astronomique, Géographique, &c. du baron de Zach*. Schumacher has also published, in Copenhagen, since 1822, *Astronomische Nachrichten*. The latest observations may be also found in the Paris *Connaissance des Temps*, and in the Berlin *Astronomisches Jahrbuch*, which has been published for more than 50 years. The history of astronomy may be found at large in Montucla's already mentioned *Histoire des Mathématiques*, 4 vols., 4to.; in Delambre's *Histoire de l'Astronomie Ancienne, celle du Moyen Age et Moderne*, Paris, 1817, 5 vols. 4to.; and in Bail-

ly's *Histoire de l'Astronomie*, of which the first volume appeared in 1771, containing the history of ancient astronomy, and the 3 other volumes, 1779 and 1782, containing the history of modern astronomy, followed, in 1787, by his *Traité de l'Astronomie Indienne*, which work, however, as we have already remarked, must be used with precaution, on account of the inclination of the author to adopt theories on insufficient grounds.

ASTURIA, or the **ASTURIAS**; a Spanish principality, of about 3670 square miles, with 365,000 inhabitants. It is bounded by Biscay on the east, Galicia on the west, Castile and Old Leon on the south, and the sea on the north. To this mountainous country of the north of Spain the Moor never penetrated with success. There the Goth retreated, in the 8th century, before the sword of the Saracen. Each Asturian, therefore, thinks himself a free *hidalgo*. The inhabitant of A. lives more upon maize, chestnuts, fruits, hazelnuts, game, fish, honey and beans, than upon wheat or similar grain. The pasture and cattle are excellent. Oil and salt are wanting entirely. The Asturian is less industrious than the Galician, and less sociable than the Biscayan. The mountains are not capable of supporting all the inhabitants, and therefore the free Asturian goes into the service of other Spaniards, who are, in his eyes, much less noble than himself, and becomes a coachman or footman.—A. formerly enjoyed many privileges, not belonging to the Castilian provinces, in respect to its interior administration, and in regard to imposts. These were abolished at the time of the revolution, but, since 1823, the old state of things has been, in a great measure, restored. The capital, Oviedo (6000 inhabitants), has a university. In Gihon, a sea-port (3200 inhabitants), is the *instituto Asturiano*, for the cultivation of mathematics, mineralogy and navigation. The hereditary prince of Spain has borne, since 1388, the title of *prince of A.*, or *de las Asturias*, according to the obsolete division into A. de Oviedo and A. de Santillana, the two chief cities of this country.

ASTYAGES; son of Cyaxares, the last king of the Medes. Herodotus relates, he dreamed, that from the womb of his daughter Mandane, married to Cambyses, king of Persia, there sprang up a vine which spread over all Asia; and she being with child, he resolved to kill the infant as soon as it was born. The child was Cyrus. Harpagus, being commissioned to destroy it, preserved its life.

Astyages, learning long after what Harpagus had done, caused him to eat his own son. Harpagus, in revenge, called in Cyrus, who dethroned his grandfather, after his victory at Pasargarda, in which the Persians defeated the Medes, and put an end to their monarchy. (See *Cyrus*.)

ASUNCION, or **NUESTRA SEÑORA DE LA ASUNCION** (in English, *Assumption*); the chief city of Paraguay, 18 miles from the first mouth of the Pilcomayo, built in 1538, and, in 1547, erected into a bishopric. The streets are ill-made and crooked. The population consisted, formerly, of about 2000 Spanish colonists, and several thousand mestizoes and Indians. The climate is temperate, and the adjacent country rich and fertile: throughout the year, many of the trees are either in foliage or loaded with fruits. The trading boats from Buenos Ayres to A. take two or three months to ascend the Plata, owing to the force of the descending current. A. has become more known, of late, as the capital of Paraguay, and the residence of the dictator, doctor Francia. (See *Francia* and *Paraguay*.) The latest information which we have of that part of the world is to be found in the *Historischer Versuch über die Revolution von Paraguay*, &c. von J. R. Rengger und M. Longchamp, Stuttgart, 1827 (Historical Essay on the Revolution of Paraguay, &c., by J. R. Rengger and M. Longchamp).

ASYLUM; a place to which persons flee for protection. Among the ancients, temples, statues of the gods and altars afforded such a refuge, and it was deemed an act of impiety to remove forcibly one who had fled to them for protection. The abuses of these institutions sometimes led men to forget their sacred character, as the Lacedemonians did in the case of Pausanias, whom they starved in the temple of Minerva. People who had fled to asylums were often starved to death by their pursuers, or the places of refuge were set on fire. All temples and sacred places, however, were not asylums, but only those particularly consecrated for this purpose. The emperor Tiberius abolished them all, except the temples of Juno and Æsculapius. These institutions passed over to the Christian world. Under Constantine the Great, all Christian churches were asylums for those who were pursued by the officers of justice or the violence of their enemies. The younger Theodosius extended the privilege, in 431, to all courts, gardens, walks and houses belonging to the church. The Franks confirmed the privilege, and, in

681, the synod of Toledo extended the limits of asylums to 30 paces from every church. This ecclesiastical privilege has since prevailed in all Catholic countries. It remained inviolate, at least in Italy, while the papal government retained its independence. It was a strong armor of defence against the wild spirit of the middle ages, and was not without good consequences at a time when force often prevailed over justice. It also changed civil punishments into ecclesiastical, limited the power of sovereigns, and extended the influence of the church. For this reason, and because justice is now much better administered, asylums have been abolished in most modern countries. It is generally known, and as generally regretted, that the late pope Leo X, on his accession to the apostolical see, reestablished the asylums, which had been abolished by his predecessor, Pius VII; the chief consequence of which has been to afford the robbers in the papal dominions a better opportunity to escape the pursuit of the Austrian troops.—In England and the U. States, this name has been given to many charitable institutions for the relief of orphans, blind, or dumb and deaf persons, &c. In no countries are institutions of this kind more common.

ASYMPTOTE; commonly, a straight line, which approaches a curve line, so that the distance between them is constantly diminishing, although they can never meet, even if indefinitely continued. Hence Leibnitz called infinite spirits the *asymptotes of the Deity*. An asymptote may also be a curve.

ASYNDETON; the omission of the small connecting particles of speech, in order to render the expression more lively and impressive. This is particularly the case when a series of actions, quickly following each other, is to be represented; e. g., in Virgil,

Ferte cito flammæ, date vela, impellite remos.

ATAHUALPA, or **ATABALIPA**; the last of the incas. He succeeded his father, in 1529, on the throne of Quito, whilst his brother Huascar obtained the kingdom of Peru. They soon made war against each other, when the latter was defeated, and his kingdom fell into the hands of A. The Spaniards, taking advantage of these internal disturbances, with Pizarro at their head, invaded Peru, where they were entertained with no little hospitality by the king and the people; but, instead of returning the kindness, they held A. in captivity, and requested

him to acknowledge the king of Spain as his master, and embrace the Christian religion. Upon his asking their authority for this request, the friar Valverde gave him the breviary as authority. A. put it to his ear, and said, "It tells me nothing;" then threw it away. This was made a pretext for a massacre of the people and the imprisonment of the king. He offered a large sum of gold as a ransom: this the Spaniards took, but still kept him prisoner. At last, he was burnt, in 1533. (See *Pizarro*.)

ATALANTA. There were two persons of this name in the ancient mythology. One of them was a native of Arcadia, the daughter of Iasus and Clymene, celebrated for her skill in archery. She slew, with her arrows, the Centaurs Rhæcus and Hyleus, who were about to offer violence to her; sailed to Colchis with the Argonauts, and was afterwards present at the chase of the Calydonian boar, which she first wounded; hence Meleager awarded to her the prize. (See *Calydon* and *Meleager*.)—The other was a daughter of Schœneus, king of Scyros, renowned for her beauty, and swiftness in running. Conscious of her exquisite beauty and her great fleetness, she imposed upon her lovers the severest conditions. She required each to run a race with her. Her admirer was to run before, unarmed, while she followed him with a dart. If she could not overtake him, she was his own; but if he was conquered, he was doomed to death, and his head set up at the goal. Many had fallen victims in the attempt, when Hippomenes, the son of Mægaræus, by the aid of Venus, overcame her. The goddess gave him three golden apples, which he threw behind him, one after another, as he ran. A. stopped to pick them up, and Hippomenes reached the goal before her. Her former reserve now gave place to such ungovernable passion, that she even profaned the temple of Ceres, which stood near the place of the race. The angry goddess changed both the parties into lions, and compelled them, from that time, to draw her chariot.

ATAMAN. (See *Hetman*.)

ATE; among the Greeks, the goddess of hate, injustice and crime. Homer says of her—

Jove's daughter, Ate, most pernicious power,
By whom all suffer, challenges from all
Reverence and fear. Delicate are her feet,
Which scorn the ground; and over human heads
She glides, injurious to the race of man;
Of two who strive, at least entangling one.

Cowper's Trans. *Iliad*, xix. l. 90.

Just before the birth of Hercules, she excited Jupiter to a strain of boasting, and thus afforded Juno an opportunity to overreach him by bringing Eurystheus first into the world. The indignant monarch of the gods seized her by her hair, precipitated her to the earth, and swore that she should never return to Olympus. Fable informs us, that she has ever since paced the earth with incredible velocity, and spread destruction and misery every where. Hesiod calls her a daughter of Eris.

ATELLANÆ FABULÆ (called, also, *Oscan plays*); a kind of light interlude between the tragedy and comedy, which, in ancient Rome, was not performed by the regular company of actors, but by free-born young Romans. This kind of play is said to have originated from the ancient *Atella*, a city of the Oscans, between Capua and Naples, and is, at the same time, the beginning and all that remains of a national Italian comedy, consisting of farce seasoned by satire.

A TEMPO (*Italian*, in time), in music; of similar signification with a *battuta*, and, like that expression, seldom used but when the time has been interrupted.—*A tempo*, in any kind of fencing or fighting, means a blow or thrust at the same time with the antagonist's blow or thrust. It is, of course, necessary that *a tempo* blows should be made in such a way as to afford, at the same time, a guard against the other's thrust, or to prevent its full effect. This kind of blows takes place particularly in fighting with the broad-sword, when the antagonist leaves himself much exposed.

ATHALIAH; daughter of Omri, king of Israel, and wife of Joram, king of Judah; a woman of abandoned character, and fond of power, who, after the death of her son Ahaziah, opened her way to the throne by the murder of 42 princes of the royal blood. She reigned 6 years: in the 7th, the high-priest, Jehoiada, placed Joash, the young son of Ahaziah, on the throne of his father. This prince had been preserved and brought up secretly in the temple by Jehosheba, the sister of Joram and wife of Jehoiada. Athaliah, attracted by the noise of the people, who were crowding to the coronation of Joash, entered with them into the temple, where the ceremony was going on. At the sight of the new king, surrounded by priests, Levites, great officers of the kingdom, and the joyful people, she was beside herself; she tore her hair, and cried out, Treason! Jehoiada ordered her to be

immediately led from the temple by the officers, and commanded that all who should offer to defend her should be slain; but she was put to death, at the gate of her palace, without opposition. This happened about 877 B. C. The altars of Baal, which she had erected, were thrown down, and the worship of the true God restored. (See *Second Book of Kings*, viii, ix.) Racine has written a tragedy on this story.

ATHAMAS, the son of Æolus and Enareta, governed a part of Bœotia. He was the husband of Nephele. Their children were Helle and Phryxus. Being afterwards separated from Nephele, he had by Ino, his second wife, Learchus, Melicertus and Eurycleia. Ino, determining to get rid of the children of Nephele, caused a failure of the crops, and bribed the messengers, whom A. had sent to the oracle to inquire the cause of the misfortune, to bring for an answer, that the children of Nephele must be sacrificed. Juno had instigated her to this measure in order to destroy her, hating her because she had been the nurse of Bacchus. But the plan failed. Nephele preserved her children by means of the golden ram, and the messengers revealed the treachery of Ino, who would have inevitably felt the vengeance of A., had not the grateful Bacchus conveyed away his nurse. A., supposing that she was put to death, married Themisto, the daughter of Hypseus, king of the Lapithæ. But Ino returned, gained his love once more, and excited the jealousy of Themisto to such a pitch, that she determined to murder Ino's children. With this view, she ordered their beds to be covered with black; but Ino, suspicious of some evil design, changed the clothes, and the unconscious Themisto murdered her own children, and became a victim to despair. Others relate, that A., having lost his reason through the anger of Juno, and taking Ino and her children for a lioness and her whelps, seized Learchus, and dashed him against a stone; that he then pursued Ino, who, with Melicertus in her arms, plunged into the sea. Stained with blood, A. now abandoned Bœotia, and fled to Phthiotis, where he built Alos, and again united himself with Themisto; but, according to Pausanias, he first went to Andreus, who gave him the country around the mountain Laphystium, which afterwards came to the children of Phryxus.

ATHANASIUS, Saint; bishop of Alexandria; a renowned father of the church,

born in that city, about 296. He had a Christian education, and came into the family of Alexander, afterwards archbishop of Alexandria, whose private secretary he became. He then went to St. Anthony, led an ascetic life with that renowned anchorite, but at length returned to Alexandria, where he became a deacon. Alexander took him to the council at Nice, where he gained the highest esteem of the fathers, by the talents which he displayed in the Arian controversy. He had a great share in the decrees passed here, and thereby drew on himself the hatred of the Arians. After six months, he was appointed the successor of Alexander. The complaints and accusations of his enemies at length induced the emperor Constantine to summon him, in 334, before the councils of Tyre and Jerusalem. A. brought to light the iniquitous arts which had been practised against him, and threw his judges, who were likewise his enemies, into such confusion, that the imperial deputies could with difficulty rescue him from their anger. They could do nothing, however, further than suspend him from his office. He still continued in the discharge of his duties, until the emperor, deceived by new falsehoods, banished him to Treves. The death of Constantine put an end to this banishment at the end of a year and some months. Constantius, emperor of the East, recalled the holy patriarch. His return to Alexandria resembled a triumph. The Arians made new complaints against him, and he was condemned by 90 Arian bishops, assembled at Antioch. On the contrary, 100 orthodox bishops, assembled at Alexandria, declared him innocent; and pope Julius confirmed this sentence, in conjunction with more than 300 bishops assembled at Sardis, from the East and West. In consequence of this, he returned a second time to his diocese. But when Constans, emperor of the West, died, and Constantius became master of the whole empire, the Arians ventured to rise up against A. They condemned him in the councils of Arles and Milan, and, as the worthy patriarch refused to listen to any thing but an express command of the emperor, when he was one day preparing to celebrate a festival in the church, 5000 soldiers suddenly rushed in to make him prisoner. But the surrounding priests and monks placed him in security. A., displaced for a third time, fled into the deserts of Egypt. His enemies pursued him even here, and set a price on his head. To relieve the hermits, who dwelt

in these solitary places, and who would not betray his retreat, from suffering on his account, he went into those parts of the desert which were entirely uninhabited. He was followed by a faithful servant, who, at the risk of his life, supplied him with the means of subsistence. In this undisturbed spot, A. composed many writings, full of eloquence, to strengthen the faith of the believers, or expose the falsehood of his enemies. When Julian the Apostate ascended the throne, he allowed the orthodox bishops to return to their churches. A. therefore returned, after an absence of six years. The mildness which he exercised towards his enemies was imitated in Gaul, Spain, Italy and Greece, and restored peace to the church. But this peace was interrupted by the complaints of the heathen, whose temples the zeal of A. kept always empty. They excited the emperor against him, and he was obliged to fly to Thebais to save his life. The death of the emperor, and the accession of Jovian, again brought him back; but, Valens becoming emperor 8 months after, and the Arians recovering the superiority, he was once more compelled to fly. He concealed himself in the tomb of his father, where he remained four months, until Valens, moved by the pressing entreaties and threats of the Alexandrians, allowed him to return. From this period, he remained undisturbed in his office till he died, 373.—Of the 46 years of his official life, he spent 20 in banishment, and the greatest part of the remainder in defending the Nicene creed. A. is one of the greatest men of whom the church can boast. His deep mind, his noble heart, his invincible courage, his living faith, his unbounded benevolence, sincere humility, lofty eloquence, and strictly virtuous life, gained the honor and love of all. His writings are on polemical, historical and moral subjects. The polemical treat chiefly of the mysterious doctrines of the Trinity, the incarnation of Christ, and the divinity of the Holy Spirit. The historical ones are of the greatest importance for the history of the church. In all his writings, the style is distinguished, considering the age in which they were produced, for clearness and moderation. His *Apology*, addressed to the emperor Constantine, is a masterpiece. The best edition is that of Montfaucon, 3 vols., fol., Paris, 1698. As a supplement to this may be added the 2d vol. of the *Library of the Church Fathers*, from the same editor (1706).

ATHAPESCOW; a lake of North America,

about 100 leagues long, and from 10 to 30 wide; lon. 110° W.; lat. 59° N. The name is applied to the adjacent territory, and also to a river which flows into the lake. Slave river flows from it to Slave lake.

ATHEISM (*Greek*, a priv. and *θεός*, God); the doctrine which teaches the non-existence of God, and is opposed to *theism*, or *deism*. As a disposition or a manner of thinking in regard to religion, it is the opposite of *faith* and *belief*. Atheism is always found to prevail most in the most depraved times; e. g., among the Greeks after Pericles, among the Romans after Augustus, among the French before the revolution, in the time of the *système de la nature*, &c. As men have at all times conceived very different ideas of the Supreme Being, it is evident that a great variety must have existed in the definitions of atheism: thus we find that many of the most moral and noble men have been called *atheists*, because their idea of the Divine Being did not agree with that of the multitude; e. g., Spinoza, a pattern of virtue. And even in the present age, persons are not wanting, who stamp every one with the name of *atheist*, who does not conceive God as separated from his creation, like an artist from his work, and governing it as an artist directs a machine. Others have asked whether there ever existed a real atheist, because such a one could not believe in any difference between the good and the bad, the noble and the base; and it is indeed doubtful whether one could be found, though some persons may pretend to this entire disbelief. If we consider the immense variety of conceptions entertained of the Supreme Being, some of which are essentially different from others, we shall come to the conclusion, that no one should be regarded as an atheist as long as he believes in the existence of virtue.

ATHELSTAN, king of England, succeeded his father, Edward the Elder, in 925. Though of illegitimate birth, his age and talents caused him to be preferred to the lawful children of Edward. He was victorious in his wars with the Danes of Northumberland, and the Scotch, by whom they were assisted. After a signal overthrow of his enemies at Brunsbury, he governed in peace and with great ability. In his reign, a law was passed conferring the rank of thane on every merchant who had made three sea voyages on his own account.

ATHENA. (See *Minerva*.)

ATHENÆUM (Ἀθηναιον). 1. The name of several places in Greece.—2. The celebrated school which Adrian established on

the Capitoline mount. Many learned men received ample salaries for giving instruction in this institution, and that they might be enabled to study at leisure. Here, also, learned men assembled to exchange ideas on their writings. In fact, it was what is now called a *scientific academy*.—3. A gymnasium, at Athens, dedicated to Minerva, and destined for assemblies of poets and orators. Instruction was also given there to the youth, and, in later times, the name was applied to all places of education for the young.—4. In modern times, the name given to different establishments which are connected with the sciences, as the *Athénée* in Paris.—In the U. S. of America, the name is frequently given to public libraries frequented for the purpose of reading.

ATHENEUS; a Greek rhetorician and grammarian, who lived at Naucratis, in Egypt, at the end of the second, and beginning of the third century after Christ. He has left an encyclopædian work, in the form of conversation, called the *Feast of the Sophists*, which is a rich, but ill-arranged treasure of historical, antiquarian, philosophical, grammatical, &c., knowledge. The principal edition is by Schweighäuser, Strasburg, 1801—7, in 14 volumes.

ATHENAGORAS; a Platonic philosopher of Athens, a convert to Christianity, who wrote a Greek Apology for the Christians, addressed to the emperor Marcus Aurelius, in 177, one of the earliest which appeared. This *legatio* or *deprecatio pro Christ.* defends the Christians from the accusations brought against them by the heathens (of atheism, of incest, and of eating murdered children), with a philosophical spirit, and a lively and forcible style. Lindner published, in 1774, the latest edition of this Apology; also, a treatise on the resurrection of the dead, an able philosophical work on the possibility and fitness of a resurrection.

ATHENS; called, by the Turks, *Athiniah*, and also *Setines*; the celebrated city, from whence the light of intellectual cultivation has spread for thousands of years, down to our own time. This capital of the old kingdom of Attica, and of the more modern democracy, was founded by Cecrops, 1550 years before Christ, and, in the most ancient times, was called *Cecropia*, which name, in after times, was retained merely by the Acropolis. Under the government of Erichonius, it lost its old name, and received that of *Athens*, probably from Minerva, who was called, by the Greeks, *Athena*. The old city was built on the summit of some rocks, which lie in the

midst of a wide and pleasant plain, which became filled with buildings as the inhabitants increased; and this made the distinction between Acropolis and Catapolis, or the upper and lower city. The citadel or Acropolis was 60 stadia in circumference, and included many extensive buildings. A. lies on the Saronic gulf, opposite the eastern coast of the Peloponnesus. It is built on a peninsula formed by the junction of the Cephissus and Ilissus. From the sea, where its real power lay, it was distant about five leagues. It was connected, by walls of great strength and extent, with three harbors—the Piræus, Munychia and Phalerum. The first was considered the most convenient, and was one of the emporiums of Grecian commerce. The surrounding coast was covered with magnificent buildings, whose splendor vied with those of the city. The walls of rough stone, which connected the harbors with the city, were so broad, that carriages could go on their top. The Acropolis contained the most splendid works of art of which A. could boast. Its chief ornament was the Parthenon, or temple of Minerva. This magnificent building, which, even in ruins, has been the wonder of the world, was 217 feet long, 98 broad, and 65 high. Destroyed by the Persians, it was rebuilt in a noble manner by Pericles, 444 years B. C. Here stood the statue of Minerva by Phidias, a masterpiece of art, formed of ivory, 46 feet high, and richly decorated with gold, whose weight was estimated at from 40 to 44 talents (2000 to 2200 pounds), which, if we reckon according to Barthelemy, the silver talent at 5700 livres, and the ratio of gold to silver as 1 to 13, would make a sum of 2,964,000, or 3,260,400 livres (523,700, or 576,004 dollars). The Propylæum, built of white marble, formed the entrance to the Parthenon. This building lay on the north side of the Acropolis, close to the Erectheum, also of white marble, consisting of two temples, the one dedicated to Pallas Minerva, and the other to Neptune; besides another remarkable building, called the *Pandroseum*. In the circle of Minerva's temple stood the olive-tree, sacred to that goddess. On the front part of the Acropolis, and on each end, two theatres are visible, the one of Bacchus, the other, the Odeum; the former for dramatic exhibitions, the latter for musical competitions, also built with extraordinary splendor. The treasury is also in the back part of the temple of Minerva. In the lower city were many fine specimens of architecture,

viz., the Poikile, or the gallery of historical paintings; besides the temple of the Winds, built by Andronicus Cyrrhestes, and the monuments of celebrated men. But the greatest pieces of architecture were without the city—the temples of Theseus and Jupiter Olympius, one of which stood on the north, the other on the south side of the city. The first was of Doric architecture, and resembled the Parthenon. On the metopes of this temple the famous deeds of old heroes and kings were excellently represented. The temple of Jupiter Olympius was of Ionic architecture, and far surpassed all the other buildings of Athens in splendor and beauty. Incalculable sums were spent on it. It was from time to time enlarged, and rendered more beautiful, until, at length, it was finished by Adrian. The outside of this temple was adorned by nearly 120 fluted columns, 60 feet high, and 6 feet in diameter. The inside was more than half a league in circumference. Here stood the renowned statue of the god made by Phidias, of gold and ivory. The Pantheon (*sacred to all the gods*) must not be forgotten. Of this the Pantheon at Rome is an exact copy. Besides these wonderful works of art, Athens contains many other places which must always be interesting, from the recollections connected with them. The old philosophers were not accustomed, as is well known, to shut up their scholars in lecture-rooms, but mingled with them on the freest and pleasantest terms, and, for this purpose, sought out spots which were still and retired. Such a spot was the renowned academy where Plato taught, lying about six stadia north of the city, forming a part of a place called *Ceramicus*. This spot, originally marshy, had been made a very pleasant place, by planting rows of trees, and turning through it streams of fresh water. Such a place was the Lyceum, where Aristotle taught, and which, through him, became the seat of the Peripatetic school. It lay on the bank of the Ilissus, opposite the city, and was also used for gymnastic exercises. Not far from thence was the less renowned Cynosarges, where Antisthenes, the founder of the Cynic school, taught. The sects of Zeno and Epicurus held their meetings in the city. Zeno chose the well-known Poikile, and Epicurus established himself in a garden within the walls, for he loved both society and rural quiet. Not only literary, but political assemblies gave a particular interest to different places in Athens. Here was the

court of areopagus, where that illustrious body gave their decisions; the Prytaneum, or senate-house; the Pnyx, where the free people of Athens deliberated. After 23 centuries of war and devastation, of changes from civilized to savage masters, have passed over this great city, its ruins still excite astonishment. No inconsiderable part of the Acropolis was lately standing. The Turks have surrounded it with a broad, irregular wall. In this wall one may perceive the remains of the old wall, together with fragments of ancient pillars, which have been taken from the ruins of the old to construct new edifices. The right wing of the Propylæum, built by Pericles at an expense of 2012 talents, and which formed the ancient entrance, was a temple of victory. The roof of this building stood as late as 1656, when it was destroyed by the explosion of some powder kept there. In a part of the present wall, there are fragments of excellent designs in *basso relievo*, representing the contest of the Athenians with the Amazons. On the opposite wing of the Propylæum are six whole columns, with gate-ways between them. These pillars, half covered on the front side by the wall built by the Turks, are of marble, white as snow, and of the finest workmanship. They consist of three or four stones, so artfully joined together, that, though they have been exposed to the weather for 2000 years, yet no separation has been observed. From the Propylæum we step into the Parthenon. On the eastern front of this building, also, there are eight columns standing, and several colonnades on the side. Of the pediment, which represented the contest of Neptune and Minerva for Athens, there is nothing remaining but the head of a sea-horse, and the figures of two women without heads; but in all we must admire the highest degree of truth and beauty. The battle between the Centaurs and Lapithæ is better preserved. Of all the statues with which it was adorned, that of Adrian alone remains. The inside of this temple is now changed into a mosque. In the whole of this mutilated building, we find an indescribable expression of grandeur and sublimity. There are also astonishing remains to be seen of the Erechtheum (the temple of Neptune Erechtheus), especially the beautiful female figures called *Caryatides*, and which form two archways. Of both theatres there is only so much of the outer walls remaining, that one can estimate their former condition and enormous size. The arena has sunk

down, and is now planted with corn. In the lower city itself, there are no vestiges to be found of equal beauty and extent. Near a church, sacred to Santa Maria Maggiore, stand three very beautiful Corinthian columns, which support an architrave. They have been supposed to be the remains of a temple of Jupiter Olympius, but the opinion is not well grounded: probably, they are the remains of the old Poikile. The temple of the Winds, built by Andronicus Cyrrhæstes, is not entire. Its form is an octagon: on each side it is covered with reliefs, which represent one of the principal winds: the work is excellent. The preservation of this edifice is owing to its being occupied by the dervises as a mosque. Of the monuments of distinguished men, with which a whole street was filled, only the fine one of Lysicrates remains. It consists of a pedestal surrounded by a colonnade, and is surmounted by a dome of Corinthian architecture. This has been supposed to be the spot which Demosthenes used for his study, but the supposition is not well supported. What lord Elgin has done for the preservation of the remains of old Grecian architecture, may be seen by a reference to the articles on *Elgin*, and *Elgin's Marble Monuments*. Some prostrate walls are the only remains of the splendid gymnasium built by Ptolemy. Outside of the city, our wonder is excited by the lofty ruins of the temple of the Olympian Jupiter. Of 120 pillars, 16 remain; but none of the statues are in existence. The pedestals and inscriptions are scattered here and there, and partly buried in the earth. The main body of the temple of Theseus has remained almost entire, but much of it, as it now stands, is of modern origin. The figures on the outside are mostly destroyed, but those which adorn the frieze within are well preserved. They represent the actions of the heroes of antiquity. The battle between Theseus and the Centaur is likewise depicted. On the hill where the famous court of areopagus held its sittings, you find steps hewn in the rock, places for the judges to sit, and over against these the stations of the accuser and the accused. The hill is now a Turkish burial-ground, and is covered with monuments. The Pnyx, the place of assembly for the people, not far from the Areopagus, is very nearly in its primitive state. One may see the place from which the orators spoke hewn in the rock, the seats of the scribes, and, at both ends, the places of those officers

whose duty it was to preserve silence, and to make known the event of public deliberations. The niches are still to be seen, where those who had any favor to ask of the people deposited their petitions. The paths for running are also visible, where the gymnastic exercises were performed, and which Herodes Atticus (q. v.) built of white marble. The spot occupied by the Lyceum is only known by a quantity of fallen stone. A more modern edifice stands in the garden in the place of the academy. In the surrounding space, the walks of the Peripatetics can be discerned, and some olive-trees of high antiquity still command the reverence of the beholder. The long walls are totally destroyed, though the foundations are yet to be found on the plain. The Piræus has scarcely any thing of its ancient splendor, except a few ruined pillars, scattered here and there: the same is the case with the Phalerum and Munychia. Some little commerce is carried on here, and a custom-house stands on the place.—Modern Athens, in Livadia, lately contained 1300 houses, and 12,000 inhabitants, 2000 of whom were Turks. The Greeks here experienced from the Turks a milder government than elsewhere. They also retained some remains of their ancient customs, and annually chose four archons. The Greek archbishop residing here had a considerable income. In 1822, the Acropolis, after a long siege, fell into the hands of the free Greeks. In 1825, a Greek school, under the care of the patriot professor George Gennadios, was in a flourishing condition. The most thorough investigation of the places among the ruins of A. worthy of attention, is contained in Leake's Topography of Athens, with some Remarks on its Antiquities, London, 1821, with an atlas in folio. (See Stuart and Revett's splendid work, the *Antiquities of Athens*, which the architect Eberhard copied, and had printed on zinc plates, and published, Darmstadt, 1824, folio.) Leake makes it appear probable, that, in the time of Pausanias, many monuments were extant which belonged to the period before the Persian war; because so transitory a possession as Xerxes had of the city, scarcely gave him time to finish the destruction of the walls and principal public edifices. In the restoration of the city to its former state, Themistocles looked more to the useful, Cimon to magnificence and splendor; and Pericles far surpassed them both in his buildings. The great supply of money which he had from

the tribute of the other states, belonged to no succeeding ruler. A. at length saw much of her ancient splendor restored; but, unluckily, Attica was not an island, and, after the sources of power, which belonged to the fruitful and extensive country of Macedonia, were developed by an able and enlightened prince, the opposing interests of many free states could not long withstand the disciplined army of a warlike people, led by an active, able and ambitious monarch. When Sylla destroyed the works of the Piræus, the power of A. by sea was at an end, and with that fell the whole city. Flattered by the triumvirate, favored by Adrian's love of the arts, A. was at no time so splendid as under the Antonines, when the magnificent works of from 8 to 10 centuries stood in view, and the edifices of Pericles were in equal preservation with the new buildings. Plutarch himself wonders how the structures of Ictinus, of Menesicles and Phidias, which were built with such surprising rapidity, could retain such a perpetual freshness. The most correct criticism on the accounts of Greece by Pausanias and Strabo is in Leake. Probably Pausanias saw Greece yet un plundered. The Romans, from reverence towards a religion approaching so nearly to their own, and wishing to conciliate a people more cultivated than themselves, were ashamed to rob temples where the masterpieces of art were kept as sacred, and were satisfied with a tribute of money in *Philipsdors*, although in Sicily they did not abstain from the plunder of the temples, on account of the prevalence of Carthaginian and Phœnician influence in that island. Pictures, even in the time of Pausanias, may have been left in their places. The wholesale robberies of collectors, the removal of great quantities of the works of art to Constantinople, when the creation of new specimens was no longer possible, Christian zeal, and the attacks of barbarians, destroyed, after a time, in A., what the emperors had spared. We have reason to think, that the colossal statue of Minerva Promachos was standing in the time of Alaric. About 420 A. D., paganism was totally annihilated at A., and, when Justinian closed even the schools of the philosophers, the recollection of the mythology was lost. The Parthenon was turned into a church of the Virgin Mary, and St. George stepped into the place of Theseus. The manufactory of silk, which had hitherto remained, was destroyed by the transportation of a colony of weavers, by Roger of

Sicily, and, in 1456, the place fell into the hands of Omar. To complete its degradation, the city of Minerva obtained the privilege (an enviable one in the East) of being governed by a black eunuch, as an appendage to the haram. The Parthenon became a mosque, and, at the west end of the Acropolis, those alterations were commenced, which the new discovery of artillery then made necessary. In 1687, at the siege of A. by the Venetians under Morosini, it appears that the temple of Victory was destroyed, the beautiful remains of which are to be seen in the British museum. Sept. 28, of this year, a bomb fired the powder-magazine kept by the Turks in the Parthenon, and, with this building, destroyed the ever memorable remains of the genius of Phidias. Probably, the Venetians knew not what they destroyed; they could not have intended that their artillery should accomplish such devastation. The city was surrendered to them Sept. 29. They wished to send the chariot of Victory, which stood on the west pediment of the Parthenon, to Venice, as a trophy of their conquest, but, in removing, it fell and was dashed to pieces. April, 1688, A. was again surrendered to the Turks, in spite of the remonstrances of the inhabitants, who, with good reason, feared the revenge of their returning masters. Learned travellers have, since that time, often visited A.; and we may thank their relations and drawings for the knowledge which we have of many of the monuments of the place. How little the Greeks of modern times have understood the importance of these buildings, is proved by Crusius' *Turco-Grecia*. From them originated the names *temple of the unknown God*, *lantern of Demosthenes*, &c. It is doing injustice to the Turks to attribute to them, exclusively, the crime of destroying these remains of antiquity. From these ruins the Greeks have supplied themselves with all their materials for building for hundreds of years. The ruins are in the neighborhood of inhabited places, and, in the seaport towns, are particularly exposed, because ease of transportation is added to the daily want of materials. In the mean time, the most accessible part of A. has rich treasures to reward well-directed researches; and each fragment, which comes to light in A., proves the all-pervading art and taste of this people. It is fortunate that many of the remains of Grecian art have been covered by barbarous structures, until a brighter day should dawn on Greece.

ATHENS; a post-town of Georgia, in Clarke co., on the Oconee; 92 W. N. W. Augusta, 197 N. W. Savannah. It has a very elevated, pleasant and healthy situation. It contained, in 1827, upwards of 70 dwelling-houses, and nearly 1000 inhabitants. Franklin college, which, together with the incorporated academies of the state, is styled the *university of Georgia*, was incorporated and established at this place in 1784, but did not go into operation till 1803. The buildings consist of two large brick edifices for the accommodation of students, a chapel, a steward's hall, a brick building for the chemical and the philosophical apparatus, and the library, which contains about 2000 volumes, and a building for a grammar-school, which is connected with the college. The government and instruction of the college are intrusted to a president, four professors and two tutors. The number of students, in 1827, was 100.

ATHENS; a small post-town of Ohio, and capital of a county of the same name, 41 miles W. Marietta, 52 E. Chillicothe; lon. 182° 7' W.; lat. 39° 23' N. It is situated on an elevated peninsula, formed by a large bend of the Hockhocking, which meanders about the town. The situation is pleasant and healthy, and commands an extensive prospect. An institution is established here, styled the *Ohio university*, which is endowed with 46,000 acres of land, yielding about 2300 dollars annually. A college edifice of brick, large and elegant, was erected in 1817.

ATHLETE; combatants who took part in the public games of Greece; also, young men who went through the gymnastic exercises to harden themselves, and to become fit to bear arms. In a narrower sense, the athlete are those who make the athletic or gymnastic exercises their principal business, particularly wrestlers and boxers. Their business was to contend at the public festivals; and they regulated their habits of life with reference to this purpose. They were well fed, and were obliged to abstain from intercourse with the other sex. Before they were permitted to exhibit themselves at the public games, inquiries were made respecting the birth, rank and conduct of each. A herald called out the name of the athlete, and demanded of all whether they had any objection against him. After this examination, and after the athlete had taken an oath that he had complied with all the conditions required, and that he would strictly obey the laws of the contest, permission was

given him to contend. The antagonists were designated by lot. Not only the applause of the people, but also crowns and statues, were conferred upon the victor. He was led in triumph; his name was written in the public records; an Olympiad was named after him, and poets sung his praise. He also received peculiar privileges, had a yearly pension, and the foremost seat at the sacred games. Particular honors were conferred on him by his native city, for all his fellow-citizens partook of his glory. (See *Gymnastics*.)

ATHOS, now *Agion Oros*, or *Monte Santo*; a high mountain, or the extremity of a long chain of mountains, in the province of Salonica, in European Turkey, which runs through a peninsula seven miles long, and three miles broad, into the Archipelago. Xerxes caused a canal, half a league wide, to be dug through the neck of land which connects the peninsula with the continent, for the purpose of conducting his fleet to Thessaly. The mountain is about 5900 feet above the level of the sea, and is inhabited by Greeks. On the sides are about twenty monasteries, and a multitude of hermitages, which contain more than 6000 monks, mostly Russian, of the order of St. Basil. These live here in a perfect separation from the world, and under such strict regulations, that they do not tolerate any female being, not even of the class of domestic animals, among them. They are also extremely industrious: they carve statues of the saints, *Agnos Dei* and *Paternosters*, which they send to the market-town of Kareis, on the mountain, where weekly markets are held, and to the rest of Europe, especially to Russia. They also collect alms, to pay their heavy taxes to the pacha and the Porte. They have many schools. The holy mountain is considered one of the most important seminaries for instruction among the Greeks, and the libraries of the monasteries are rich in literary treasures, particularly in manuscripts, partly procured from Constantinople, before its conquest by the Turks, partly presented to them from the same place, and partly written by the laborious monks. Many books have been brought thence to the great collections at Paris, Vienna, &c. Their monasteries and churches are the only ones in the Ottoman empire which have bells.

ATHWART (*par le travers*, Fr., from *a* and *twert*, Dan., transverse), when used in navigation, implies across the line of the course.

ATHWART-HAWSE; the situation of a

ship when she is driven by the wind, tide, or other accident, across the forepart of another. This phrase is equally applied when the ships bear against each other, or when they are at a small distance; the transverse position of the former to the latter being principally understood.—*Athwart the fore-foot* denotes the flight of a cannon-ball from one ship across the course of another, to intercept the latter, and oblige her to shorten sail, that the former may come near enough to examine her.

ATLANTICA, *Atlant eller Manheim*; a work, in Latin and Swedish, by O. Rudbeck, in which the author, with great learning, labors to prove a ludicrous hypothesis, that the *Atlantis* of the ancients was Sweden, and that the Romans, Greeks, English, Danes and Germans originated from Sweden. The work is a typographic rarity. The first volume appeared in 1675–79, at Upsal. Several editions of it followed. The last Latin edition is of 1699, and bears a high price. Written copies of it are in several European libraries.

ATLANTIC OCEAN; the mass of water between the western coast of Europe and Africa, and the eastern coast of America; the only considerable aquatic communication between the polar extremities of the earth, if we do not give to both its extremities the name of the *Frozen ocean*. The name is derived from *Atlas*. (q. v.) The Atlantic, in its narrowest part, between Europe and Greenland, is upwards of 1000 miles wide, and, opening thence to the S. W. with the general range of the bounding continents, spreads, under the northern tropic, to a breadth of 60 degrees of longitude, or 4170 miles, without estimating the gulf of Mexico. Beyond the torrid zone, the A. inflects to the N. W. and S. E., again complying with the bearing of the adjacent continents, which correspond with great exactness to each other. The A. and its gulfs occupy about the seventh part of the superficies of the globe, curving round the western, southern and northern part of the eastern continent, from 72° N. lat. to 35° S. lat., or through 107 degrees of latitude. This immense strait is limited, on the west, by the most lengthened land-line, extending north and south, that can be drawn on the earth. "When we cast an eye over the Atlantic," says Humboldt, in his *Personal Narrative*, "or that deep valley which divides the western coasts of Europe and Africa from the eastern coasts of the new continent, we distin-

guish a contrary direction in the motion of the waters. Between the tropics, especially from the coast of Senegal to the Caribbean sea, the general current, that which was earliest known to mariners, flows constantly from east to west. This is called the *equinoctial current*. Its mean rapidity, corresponding to different latitudes, is the same in the Atlantic and Southern oceans, and may be estimated at 9 or 10 miles in 24 hours; consequently from 59 to 65 hundredths of a foot every second of time." This great observer also says, "In comparing the observations which I had occasion to make in the two hemispheres, with those which are laid down in the Voyages of Cook, la Perouse, d'Entrecasteaux, Vancouver, Macartney, Krusenstern and Marchand, I found that the swiftness of the general current of the tropics varies from 5 to 18 miles in 24 hours, or from one third of a foot to one and two tenths per second." The western equinoctial current is felt, though feebly, as high as 28° N. lat., and about as far south, though it must be in excess along the equator. The eastern salient point of South America being in upwards of 6° S. lat., the great mass of ocean flood is unequally divided. South from cape St. Roque, the current is turned down the coast of South America, and, between 30° and 40° S. lat., reacts towards Africa. North from cape St. Roque, the coast of South America bends to a general course of N. 62° W., and, with the Caribbean sea and the gulf of Mexico, maintains that direction to the mouth of the Rio Grande del Norte, 2560 miles. Along this coast, the equinoctial current is inflected northward, and augmented by constant accumulations from the east; the whole body pouring through the various inlets between the Windward islands of the West Indies into the Caribbean sea, and thence, between Cuba and Yucatan, into the gulf of Mexico. In the latter reservoir, it has reached its utmost elevation, and again rushes out into the A. through the Cuba and Bahama or Florida channel, and, sweeping along the coast of the U. States and Nova Scotia, to about 50° N. lat., meets the Arctic currents from Davis's straits, and, from the Northern Atlantic ocean, is turned towards Europe and the north-west of Africa, and is finally merged in its original source within the tropics. To this oceanic river has been given the name of *gulf-stream*. It is the second most extensive and much the most strongly marked whirlpool on

the globe, having an outline of about 15,000 miles. The mean motion of the gulf-stream is, no doubt, changeable, even at the same points. The time of its periodical revolution is about 24 years, and the maximum of motion in the Bahama channel. Humboldt notices this phenomenon thus:—"In the Florida channel, I observed, in the month of May, 1804, in the 26th and 27th degrees of latitude, a celerity of 80 miles in 24 hours, or 5 feet every second, though at this period the north wind blew with great violence. At the end of the gulf of Florida, in the parallel of cape Canaveral, the gulf-stream, or current of Florida, runs to the N. E. Its rapidity resembles that of a torrent, and is sometimes five miles an hour." (For further information on this subject, see the article *Current*, and also Darby's *View of the United States*, Philadelphia, 1828.)—Humboldt endeavored to ascertain the comparative height of the waters of this ocean along its shores, and that of the Pacific on the opposite side of the isthmus, taking the level of the gulf of Mexico as a standard. He found the surface of the former to be 6 or 7 metres higher than that of the latter (19 or 22 feet, English measure). The depth of the A. is also extremely various, in many places being wholly beyond the power of man to fathom. Captain Scoresby, in the Greenland sea, in 1817, plumbed to the greatest known depth which a line has reached, i. e. 7200 feet. Many parts of this ocean, however, are thought to be much deeper.—The saltness and specific gravity of the A. differ in various parts, and gradually diminish from the equator to the poles. In the neighborhood of the British isles, the salt has been stated at $\frac{1}{38}$ th of the weight of the water; and, according to doctor Thompson, the proportion of saline contents does not appear to differ much, whatever may be the latitude in which the water is examined. The variation resulting from all the observations of Pages, Phipps and Baume, is from 0.0451 to 0.35 saline matter. The temperature of the A. is highest between 5° 45' and 6° 15' N. lat., where it has been found, by actual observation, to vary from about 82° 5' to 84° 5' of Fahrenheit. Peron and Humboldt give several interesting results of their observations. The currents and the masses of ice which go from the north, in the general current, to the equator, change the temperature of the water very much. Fragments of these icebergs occasionally reach the 40th degree of latitude. In the months of June

and July, they add much to the danger of a passage between North America and England. We do not know that there exists an exact comparison of the natural history of the A. with that of other oceans.

ATLANTIDES ; pillars, in the form of a man, used in building, to support a projection or a cornice. (See *Caryatides*.)

ATLANTIS ; among the ancients, the name of an island in the Atlantic, of which vague accounts had been received from ships which had ventured into the ocean. Their descriptions of its situation were very indefinite, and, as they placed it in a spot where afterwards no island was found, it was supposed that it had sunk. But some persons imagine that Phœnician or Carthaginian merchant-ships (as we know happened to a Portuguese ship in the time of Columbus), being driven out of their course by storms and currents, were forced over to the American coasts, from which they afterwards fortunately returned to their country ; and that, therefore, the island of A. mentioned by Plato, as well as the great nameless island spoken of by Diodorus, Pliny and Arnobius, was nothing more than what is now called *America*.—The most distinct account of the island of A. is in Plato's *Timæus*. (See *Atlantica*.)

ATLAS ; a chain of mountains which extends over a large part of Northern Africa. The Greater A. runs through the kingdom of Morocco, as far south as Sahara, and is more than 11,000 feet high. The Lesser A. extends from Morocco, towards the N. E., to the northern coast.—The mythology of the Greeks assigned this mountain to a Titan, son of Japetus and Clymene. Jupiter, the conqueror of the Titans, condemned him to bear the vault of heaven ; which fable arose from his lofty stature. He was endowed with wisdom, and later accounts ascribe to him much knowledge, particularly of astronomy. By Pleione, the daughter of Oceanus, he had seven daughters, who, under the name of *Pleiades* (called, likewise, after their father, *Atlantides*), shone in the heavens. According to some, he was also the father of the Hyades.—*Atlas*, in anatomy, is the name of the first vertebra of the neck, which supports the head.—*Atlas*, in commerce ; a silk cloth manufactured in the East Indies. The manufacture is admirable, and, as yet, inimitable by Europeans ; yet it has not that lustre, which the French know how to give to their silk stuffs.—*Atlas* ; a name

given to collections of maps and charts ; so called from the giant who supported heaven. This name was first used to signify a geographical system, by Gerard Mercator, in the 16th century.

ATMOSPHERE ; commonly, the air in which our earth appears to swim ; but, in the widest sense, it is that mass of thin, elastic fluid, with which any body is completely surrounded. Hence we speak of an atmosphere of the sun, of the moon, of the planets, of electric and magnetic bodies, &c., the existence of which may not be fully proved, but is more or less probable. It is certain that our earth has an atmosphere, by which, according to the preceding definition, we understand the surrounding body of air and vapor. By means of its weight, the air is inseparably connected with the earth, and presses on it according to the laws of heavy, elastic fluids. Its whole pressure is equal to its weight, and, like that of all other heavy, elastic fluids, is exerted equally on all sides. If, now, by any circumstance, a stronger pressure is exerted on one side, certain phenomena are observed, which continue till the equilibrium is restored. Thus, for instance, water ascends, in the bore of a pump, above its general level, as soon as a vacuum is made between it and the piston, which is drawn up. The cause of this is the disturbance of the equilibrium, since the air without the bore presses on the water without, while no air is present within. By means of this pressure, if the bore is long enough, the water may be raised to the height of 32½ feet. This is the weight with which the atmosphere presses on the earth, and which is equal to the pressure of an ocean 32½ feet deep, spread over the whole earth. Hence it follows, that, at 28 inches barometrical height, the atmosphere presses with a weight of 32,440 pounds on the human body, estimated at 15 square feet. The man does not perceive this pressure, because the air entirely surrounds him, and is, besides, within him. On account of its elasticity, it presses in every direction, even from within the man outwards, and consequently counterbalances the air spread over the body. That the atmosphere has not a uniform density, may be inferred from this, that the lower strata of the air have to support the weight of the upper ones, on which account they must become more compressed and denser. According to the law of Mariotte, the density of the atmosphere diminishes in geometrical, while the height increases in arith-

metical progression. This law may not hold at the extreme limits of the atmosphere, because the air at that height, free from all pressure, must be completely in its natural state. The height of the atmosphere has been estimated, by natural philosophers, at from 30 to 40 miles—partly from the pressure which it exerts, partly from the twilight; since it is to be supposed, that the air, as far as it reflects light or receives illumination, belongs to our planet. Delambre, however (*Astronomie*, vol. 3, p. 337), considers this height to be almost 46 miles, which, remarkably enough, Kepler has mentioned in the *Cap. Astr.*, p. 73. In respect to its form, the atmosphere may be considered as a spheroid, elevated at the equator, on account of the diurnal motion of the earth, and also on account of the great rarefaction of the air by the sun's rays, which there exert a powerful influence. The constituent parts of the earth's atmosphere are nitrogen and oxygen, which are found every where, and at all times, nearly in the proportion 76 : 23. Beside these, there is a small portion of carbonic acid, a variable portion of aqueous vapor, and a very small, indefinite quantity of hydrogen. (See *Gas*.) It also contains, in the form of vapor, a multitude of adventitious substances, in those injurious mixtures known under the name *miasmata*, the nature of which can hardly be investigated. As to the manner in which these different ingredients are united, various hypotheses have been formed, of which that of Dalton, which denies a chemical mixture, is one of the most celebrated, but also the most opposed. (For what has been written upon the atmosphere, see the article *Atmosphere*, in the new edition of Gehler's *Dictionary of Natural Philosophy*, 1 vol., Leipsic, 1825. De Luc's *Recherches sur les Modifications de l'Atmosphère*, 2 vols. 4to., Geneva, 1772 (in German, Leipsic, 1776—78), still continues to be held in high esteem. See the section *d'Atmosphère*, in Biot's *Traité d'Astronomie Physique*, 2d ed., Paris, 1810, 3 vols. On the atmosphere of the sun, moon and the other planets, see the respective articles. See, also, *Air*.)

ATOMS; according to the hypothesis of some philosophers, the primary parts of elementary matter not any further divisible. Moschus of Sidon, who is said to have lived before the Trojan war, taught, as we are told, that the original matter is composed of small, indivisible bodies. Leucippus (510 B. C.) established a system respecting the origin of the

world, resting on the mixture of atoms, in which chance governed, in opposition to the immaterial system of the Eleatics, who contended, that whatever existed was only one being, and that all apparent changes in the universe are mere illusions of sense. Democritus and Epicurus extended this system: the latter, particularly, made many additions to it. Lucretius, and, among the moderns, Gassendi, have illustrated the doctrine of Epicurus. Descartes formed from this his system of the vortices. Newton and Boerhaave supposed that the original matter consists of hard, ponderable, impenetrable, inactive and immutable particles, from the variety in the composition of which, the variety of bodies originates. A system founded on the theory of atoms is called *atomic*, e. g., that of le Sage; sometimes it is also called *corpuscular philosophy*, and is opposed to the *dynamic theory*. (See this article.) In Germany, the theory of atoms finds very few adherents: it is generally thought, in that country, a gross conception of the universe, and a very unsatisfactory one, as it only removes the question respecting the nature of matter one step farther. In France and England, the number of believers in it is greater.

ATOOL, or **ATTOWA**, or **ATTOWAY**, or **TOWI**; one of the Sandwich islands, in the Pacific ocean; about 30 miles in length from E. to W., according to some; others make it 300 miles in circumference. It has a good road and anchoring-place on the S. W. side of the island, called *Wymoa*. It is supposed to contain 54,000 inhabitants. The natives make canoes of fine workmanship. Some of them, from the frequent visits of British and American navigators, are able to converse in English. Several Europeans reside here. Lon. 159° 40' W.; lat. 21° 57' N. (See *Sandwich Islands*.)

ATREBATES; the ancient inhabitants of Gallia Belgica, who possessed that part of Gaul afterwards called *Artois*. A colony of them settled in Britain. Cæsar mentions them as one of the nations confederated against him, and as having engaged to furnish 15,000 troops to the allied army. The Atrebates, or Atrebatii, in Britain, resided next to the Bibroci in a part of Berkshire and Oxfordshire. They were one of the tribes which submitted to Cæsar.

ATREUS; son of Pelops and Hippodamia. He and his brother Thyestes murdered their half-brother Chrysippus, from jealousy of the affection entertained for him by their father. Thereupon, they

fled to Eurystheus, with whose daughter, *Ærope*, A. united himself; and, after the death of his father-in-law, became king of Mycene. Thyestes, yielding to an unlawful passion for the wife of his brother, dishonored his bed, and had two sons by her. A., after the discovery of this injury, banished Thyestes with his sons. Thirsting for revenge, Thyestes conveyed away secretly a son of his brother, and instigated him to murder his own father. This design was discovered, and the youth, whom A. thought to be the son of his brother, was put to death. Too late did the unhappy father perceive his mistake. A horrible revenge was necessary to give him consolation. He pretended to be reconciled to Thyestes, and invited him, with his two sons, to a feast, and, after he had caused the latter to be secretly slain, he placed a dish made of their flesh before Thyestes, and, when he had finished eating, brought the bones of his sons, and showed him, with a scornful smile, the dreadful revenge which he had taken. At this spectacle, the poets say, the sun turned back in his course, in order not to throw light upon such a horrible deed.

ATRIDES. (See *Agamemnon*.)

ATRIP (*trepot*, Fr.; *trippen*, Dutch) is applied indifferently to the anchor or to the sails. The anchor is atrip (*derangée*), when it is drawn out of the ground in a perpendicular direction, either by the cable or buoy-rope. The top-sails are said to be atrip, when they are hoisted up to the mast-head, or to their utmost extent.

ATROPHY is a deficient nourishment of the body. There are many diseases in which the body becomes daily more lean and emaciated, appears deprived of its common nourishment, and, for that reason, of its common strength. It is only, therefore, in those cases in which the emaciation constantly increases, that it constitutes a peculiar disease; for when it is merely a symptom of other common diseases, it ceases with the disease, as being merely a consequence of great evacuations, or of the diminished usefulness or imperfect digestion of the nourishment received. But, when emaciation or atrophy constitutes a disease by itself, it depends upon causes peculiar to this state of the system. These causes are, permanent, oppressive and exhausting passions, organic disease, a want of proper food or of pure air, exhausting diseases, as nervous or malignant fevers, suppurations in important organs, as the lungs, the liver, &c. Copious evacuations of

blood, saliva, semen, &c., are also apt to produce this disease, and, on this account, lying-in women, and nurses who are of slender constitution, and those who are too much addicted to venery, are often the subjects of this complaint. This state of the system is also sometimes produced by poisons, e. g., arsenic, mercury, lead, in miners, painters, gilders, &c. A species of atrophy takes place in old people, in whom an entire loss of strength and flesh brings on a termination of life without the occurrence of any positive disorder. It is known as the *marasmus senilis*, or atrophy of old people. Atrophy is of frequent occurrence, in infancy, as a consequence of improper, unwholesome food, exposure to cold, damp or impure air, &c.; producing a superabundance of mucus in the bowels, worms, obstructions of the mesenteric glands, followed by extreme emaciation, which state of things is often fatal, although the efforts of the physician are sometimes successful, when all the causes of the disease have been previously removed. A local state of the same kind is sometimes produced in single limbs, by palsies, or the pressure of tumors upon the nerves of the limb, &c., and is generally curable by removing the cause.

ATROPOS; one of the Fates. (q. v.)

ATTACCA, Italian (*attach*), signifies, in music, that a passage is to follow another immediately; e. g., *attacca allegro*.

ATTACHMENT denotes the apprehending a person, or seizing a thing, in virtue of a writ issuing from a court. An attachment of the person is more usually called an *arrest*. In respect to property, the word *attachment* more frequently refers to an arrest of it on mesne process, or before a judgment of court. In some of the U. States, a creditor may previously attach another person's property, real or personal, to satisfy the judgment he may recover: in other states, no such previous attachment can ordinarily be made, and is permitted only in case of absconding debtors, or other particularly excepted cases. And the more general and prevailing rule throughout the world is, that the property of a person can be seized only in pursuance of a judicial order or decree, made upon testimony being produced, and the party heard; and between a creditor and debtor, the more general and almost universal rule is, that the creditor cannot seize the goods or property of his alleged debtor until the debt is established by the proceedings of a judicial tribunal. In regard to the per-

son, attachments or arrests are made for a variety of causes, and, among others, for debt. But, in respect to an arrest of the person, as well as that of property, the laws of most countries do not permit the person of any citizen to be seized and imprisoned without a decree or judgment of a court directly authorizing the arrest. But in some of the U. States, any creditor to the amount of five dollars, or some other amount, greater or smaller, may arrest the person of his debtor, at the commencement of the process against him, in order that the creditor may have his body to levy execution upon, when the debt shall be established by a judicial decree or judgment. But attachment of the person for this cause is not permitted by the laws of most countries, except in cases of the apprehended absconding of the debtor; this being an exception to the rule most generally adopted, which is, that the creditor first establishes his debt, and gets judgment and execution upon it, before he can use it as an instrument for violating the personal liberty of his debtor. In cases of alleged crime, the person of the accused party is seized, and he is imprisoned, or compelled to give bail by the laws of all countries; but he is most generally first taken before a magistrate, and permitted to show cause against being imprisoned, or required to give bail.—Another cause of attachment is, the defendant's not appearing at court, after being summoned by subpoena (an order of court prescribing a penalty in case of disobedience) out of a court of chancery. His not obeying is considered to be a contempt of the court, which thereupon orders him to be arrested, and brought into court. But attachment for this cause is not made in a court of law; for if the defendant, being summoned, does not appear, on being called in court, his default is noted, and the court proceeds to give judgment against him, upon such testimony as the plaintiff may produce. One reason of this distinction between a court of equity and a court of law is, that the presence and agency of the defendant are requisite, in many equity cases, in order to carry into effect the judgment of the court; as when the court decrees the specific execution of an agreement, or the rendering of an account, or the disclosure of facts by the defendant upon his oath. Attachments are issued by courts for various other contempts, as against an officer of a court for abusing the process of the court, e. g., if he refuse to execute it without a bribe

from a party; against a witness who refuses to appear when summoned for the purpose of giving testimony, or who refuses to testify, after he has appeared, before a court of law or a grand jury; against any person, whether an officer of the court, a party, witness, or mere bystander, for disorderly conduct in the presence of the court, whereby its proceedings are disturbed and the administration of justice interrupted; for attempting to corrupt a jurymen, or forcibly detain a witness who is summoned to testify in a case; for publishing an account of the proceedings of the court while a cause is pending, in such a manner that the minds of the judges or jurors may be prejudiced by such publication; for obstructing the service of any writ or process of the court; for taking out an execution where there is no judgment; and, in general, an attachment lies against any person who directly obstructs or interferes with the regular administration of justice. It lies against the judges of an inferior court who proceed in a case contrary to the order of a superior court.

ATTACHMENT, FOREIGN, is the attachment, by a creditor, of a debt due to his debtor from a third person; called *foreign attachment*, from its being one mode of securing debts due from foreigners. In Scotland, it is called *assisting* the debt. In London, the process is called a *garnishment*, or *warning*, the person summoned being the *garnishee*. The same process is, in some of the U. States, called the *trustee process*, and the person summoned is called the *trustee*, on the supposition of his having in his hands and possession, or being *intrusted* with, the money or goods of the principal debtor.—The general rule, as to arresting debts due from third persons, by foreign attachment, is, that only absolute debts can be so attached, not the claims which the principal debtor may have against the garnishee, or supposed trustee, for damages on account of trespasses and wrongs done to him by the garnishee or supposed trustee. As the process is instituted to recover a supposed debt due to the plaintiff from the principal defendant, by obtaining satisfaction of a debtor of that defendant, he must have notice, and be made a party to the suit, and have an opportunity to dispute the demand of the plaintiff; and the law, in some instances at least, allows the garnishee or trustee, if he be really a debtor to the principal defendant, to take upon himself the defence against the plaintiff's demand.

ATTACK. Every combat consists of attack and defence: the first, with few exceptions, will always be more advantageous: hence an experienced general chooses it, if possible, even in a defensive war. Nothing is more ruinous than to lose its advantage; and it is one of the most important objects to deprive an adversary of it, and to confine him to the defensive. The attack is directed according to the condition and position of the enemy, according to the purpose of the war, according to place, time and circumstances. Many modes and combinations are allowable. The simplest and most unexpected form will be the best. On the dexterity and courage of the troops, the correct and quick execution of the attack will depend. Those attacks are the best, where all the forces can be directed in concert towards that point of the enemy on which his position depends. If he be beaten at this point, the resistance at others will be without concert or energy. Sometimes it may be of advantage to attack the weakest side of the enemy, if in this way a fatal blow can be given to him; otherwise, an attack at this point is not advisable, because it leads to no decisive results, leaves the stronger points to be overcome afterwards, and divides the force of the assailant. In most cases, the enemy may be defeated, if his forces can be divided, and the several parts attacked in detail. The worst form of attack is that which extends the assailing troops in long, weak lines, or scatters them in diverging directions. It is always unfortunate to adopt half measures, and not aim to attain the object at any price. Instead of saving power, these consume it in fruitless efforts, and sacrifices are made in vain. Feeble assaults and protracted sieges are of this ruinous character. The forms of attack in a battle, which have been used from the earliest times, are divided by the tacticians into, 1, the parallel. This is the most natural form, and even the troops attacked strive as much as possible to preserve it; for as long as they can do so, they retain their connexion, and the power of applying their force as occasion may require; but, for this very reason, it is not the best form of attack, because it leaves the defensive party too long in possession of his advantages. 2. The form in which both the wings attack, and the centre is kept back. Where the front of the enemy is weak (the only case in which it is practicable), it appears, indeed, overpowering. 3. The form in which the centre

is pushed forward, and the wings kept back, will hardly ever be chosen, on account of several evident disadvantages. 4. The famous oblique mode, where one wing advances to engage, whilst the other is kept back, and occupies the attention of the enemy by pretending an attack. Epaminondas, if not the inventor of this form, knew, at least, how to employ it to the greatest advantage. Whilst the wing which remained behind engaged the attention of the enemy, he increased, continually, the strength of the one advancing, which he led against the flank of the enemy, with a view of overpowering it by numerical superiority. The success of this mode is almost certain, provided the enemy takes no measures against it. In our times, this form of attack is executed in another way:—whilst engaging the enemy, his flank is surrounded by detached corps, which fall, at the same time, on his rear. If he suffers this quietly, he is vanquished. The enemy's attention is kept occupied, during such operations, mostly by feigned attacks or movements, which are called, in general, *demonstrations*, and are intended to keep him in error concerning the real object. (On the attack of fortresses, see the article *Siege*.) Field fortifications are attacked with columns, if possible, from several sides at the same time, and with impetuosity. Commonly, the artillery breaks a way beforehand, destroys the works, and disturbs the garrison.

ATTAINDER is, by the common law, the corruption of blood, or *stain* consequent upon a person's being adjudged guilty of a capital offence, in which case the law set a note of infamy upon him, and put him out of its protection, taking no further concern about him, except that he should be executed. But this attainder does not take place until judgment is pronounced against him. It might be by confession, as when the party pleaded guilty, or by verdict, when he pleaded not guilty, and was found guilty by the jury. There were, formerly, by the English law, various forfeitures incident to attainder, such as incapacity to inherit or transmit property; but attainder is scarcely known at present in the laws of the U. States; at least, the term is of very rare occurrence in their laws, though there are some disabilities consequent upon conviction of perjury, or any other crime which makes a man infamous, such as incompetency to be a witness.

ATTAINT is a writ at the common law against a jury for a false verdict. It might

be brought by a party aggrieved, and lay where the jury found a verdict against the evidence, or found a fact foreign to the evidence, or where their verdict was against well-known and acknowledged law. It was a process for trying the jury-men for misconduct in trying a cause. The writ seems to be now obsolete in England, and it has never been adopted in practice in the U. States.

ATTERBOM, Daniel Amadeus, born, Jan. 19, 1790, at Asbo, East Gothland, in Sweden, son of a country clergyman, grew up in a retired and romantic part of the country. He early became acquainted with German literature. In 1805, he went to the university of Upsal, where, some time afterwards, he established, in connexion with several young friends, a poetical-critical society, which contributed not a little to influence the taste of Sweden. In 1817—19, A. visited Germany and Italy, and was, on his return, appointed teacher of the German language to the royal prince Ottocar. Afterwards, he lived partly in Stockholm, partly in Upsal, as *magister docens* of universal history. In 1812, he began his *Poetisk Kalender* (Poetical Almanac), which is still continued annually. He has published many poems and prose writings in his native tongue, also some German poems. His greatest merit is, that he strove with success against the constrained French style which had prevailed in the literature of Sweden since the time of Gustavus III. His chief antagonist is the librarian Wallmark in Stockholm.

ATTERBURY, Francis, a celebrated English prelate, was born in 1662, and received his education at Westminster, where he was elected a student of Christ's-church college, Oxon. He distinguished himself at the university as a classical scholar, and gave proofs of an elegant taste for poetry. In 1687, he took his degree of M. A., and for the first time appeared as a controversialist in a defence of the character of Luther, entitled, *Considerations on the Spirit of Martin Luther, &c.* He was also thought to have assisted his pupil, the Hon. Mr. Boyle, in his famous controversy with Bentley on the epistles of Phalaris. He continued some time longer at college, exceedingly discontented, feeling, with truth, that he was adapted to act on a wider theatre, and possessing all the ambition and restlessness, by which his subsequent career was so much distinguished. His father advised him to marry into some family of interest, "bishop's, or archbishop's, or

some courtier's;" to which parental counsel the future bishop duly attended.—Having taken orders in 1691, he settled in London, where he became chaplain to William and Mary, preacher of Bridewell, and lecturer of St. Bride's, and soon became distinguished by the spirit and elegance of his pulpit compositions, but not without incurring opposition, on the score of their tendency and doctrine, from Hoadly and others. Controversy, however, was altogether congenial to the disposition of A., who, in 1706, commenced one with doctor Wake, which lasted four years, on the rights, privileges and powers of convocations. For this service, he received the thanks of the lower house of convocation, and the degree of doctor of divinity from Oxford.—Soon after the accession of queen Anne, he was made dean of Carlisle, and, besides his dispute with Hoadly on the subject of passive obedience, he aided in the defence of the famous Sacheverell, and wrote "A Representation of the present State of Religion," which was deemed too violent to be presented to the queen, although privately circulated. In 1712, he was made dean of Christ-church, and, in 1713, bishop of Rochester and dean of Westminster. The death of the queen, in 1714, put an end to his hopes of further advancement; for the new king treated him with great coolness, doubtless aware of either the report or the fact of his offer, on the death of Anne, to proclaim the pretender in full canonicals, if allowed a sufficient guard. A. not only refused to sign the loyal declaration of the bishops in the rebellion of 1715, but suspended a clergyman for lending his church, for the performance of divine service, to the Dutch troops brought over to act against the rebels. Not content with a constitutional opposition, he entered into a correspondence with the pretender's party, was apprehended in August, 1722, and committed to the Tower; and, in the March following, a bill was brought into the house of commons for the infliction of pains and penalties. This measure met with considerable opposition in the house of lords, and was resisted with great firmness and eloquence by the bishop, who maintained his innocence with his usual acuteness and dexterity. His guilt, however, has been tolerably well proved by documents since published. He was deprived of his dignities, and outlawed, and went to Paris, where he chiefly occupied himself in study, and in correspondence with men of letters. But, even here, in 1725, he was

actively engaged in fermenting discontent in the Highlands of Scotland. He died in 1731, and his body was privately interred in Westminster abbey. As a composer of sermons, he still retains a great portion of his original reputation. His letters, also, are extremely easy and elegant; but, as a critic and a controversialist, he is deemed rather dexterous and popular than accurate and profound. If an anecdote told by Pope to Chesterfield be correct, he was a sceptic early in life; but the same authority also states, that he ceased to be so after his mind had become mature.

ATTIC BASE; a peculiar kind of base, used by the ancient architects in the Ionic order, and by Palladio and some others in the Doric.—*Attic Order*, or *Attics*, in architecture; a kind of order raised upon another larger order by way of crowning, or to finish the building.—*Attic Salt*; a delicate, poignant kind of wit, for which many Athenians were distinguished, and which, in fact, was peculiar to them. The moderns have adopted this expression from the Latin writers.—*Attic Story*, in architecture; a story in the upper part of a house, where the windows are usually square.

ATTICA, a province of ancient Greece, the capital of which, Athens, was once, by reason of its intellectual culture and refinement, the first city in the world, is a peninsula, united, towards the north, with Bœotia, towards the west, in some degree, with Megaris, and extends far into the *Ægean* sea at cape Sunium (now cape *Colonna*), where the Athenians had a fortress and a splendid temple of Minerva. The unfruitfulness of its soil protected it against foreign invaders, and the Athenians boasted of their ancient and unmingled race. They called themselves sons of the soil on which they dwelt, and pretended that they originated at the same time with the sun. The earliest inhabitants of A. lived in a savage manner, without bread, without marriage, and in scattered huts, until the time of Cecrops, who came, B. C. 1550, with a colony from Sais, at the mouth of the Nile, to A., and is acknowledged as their first real king. He softened their manners, and taught them a better mode of living; he planted the olive-tree, and instructed them in the culture of different kinds of grain; he instituted the worship of the gods, and commanded to offer them sacrifices of the fruits of the earth; he established laws of marriage, and directed the burial of the dead.

The inhabitants, who amounted to about 20,000, he divided into four classes, compelled them to bring their habitations near to each other, and protect them with a wall against the attacks of robbers. This was the origin of Athens, which, at that time, bore the name of *Cecropia*. One of Cecrops' descendants, as like him in spirit as in name, founded 11 other cities, which, in after times, made war upon each other. Theseus compelled these cities to unite, and to give to Cecropia, now called *Athens*, as the capital city of the whole country, the supreme power over the confederacy. He founded the great feast called the *panathenæa*. He himself, as the head of the state, watched over the administration of the laws, and commanded the army. He divided the whole people into three classes—noblemen, husbandmen and mechanics. From the first class the magistrates were selected, who performed the duties of priests, and interpreted the laws. He embellished and enlarged Athens, and invited foreigners to people the country. After the death of Codrus, B. C. 1068, the monarchical form of government, which had continued 487 years from the time of Cecrops, was abolished. An archon, chosen for life, possessed the regal power. After 316 years, the term of office of the archons was limited to 10 years, and, 70 years later, to 1 year, and their number was increased to 9. A regular code of laws was now needed. The archon Draco was commissioned to draw one up; but his severity disgusted the minds of the people, and, B. C. 594, Solon introduced a milder code and a better constitution. He provided that the form of government should continue democratic, and that a senate of 400 members, chosen from the people, should administer the government. He divided the people into four classes, according to their wealth. The offices of government were to be filled from the three first, but the fourth were to be admitted to the assemblies of the people, and to have an equal share, by their vote, in legislation. But this constitution was too artificial to be permanent. Pisistratus, a man of talents, boldness and ambition, put himself at the head of the poorer classes, and made himself master of the supreme power in Athens. His government was splendid and beneficent, but his two sons could not maintain it. Hipparchus was murdered, and Hippias banished. Cleisthenes, a friend of the people, exerted himself to prevent future abuses, by some

changes in the laws of Solon. He divided the people into 10 classes, and made the senate consist of 500 persons. A. was already highly cultivated; the vintage and harvest, like all the labors of this gay people, were celebrated with dance and song, with feasts and sacrifices. The wool of A. was famous, on account of the care bestowed upon the sheep, and the skill with which it was dyed of the most beautiful colors. Mount Hymettus (q. v.) yielded the finest honey, and mount Laurium contained rich silver mines, the products of which were appropriated to the support of the fleet. Then came the splendid era of the Persian war, which elevated Athens to the summit of fame. Miltiades at Marathon, and Themistocles at Salamis, conquered the Persians by land and by sea. The freedom of Greece escaped the dangers which had threatened it; the rights of the people were enlarged; the archons and other magistrates were chosen from all classes without distinction. The period from the Persian war to the time of Alexander (B. C. 500 to 336) was most remarkable for the development of the Athenian constitution. According to Böckh's excellent work, *Die Staatshaushaltung der Athener* (2 vols., Berlin, 1817), A. contained, together with the islands of Salamis and Helena, a territory of 847 square miles, with 500,000 inhabitants, 365,000 of whom were slaves. Böckh estimates the inhabitants of the city and harbors at 180,000; those of the mines at 20,000. Cimon and Pericles (B. C. 444) introduced the highest elegance into Athens, but the latter laid the foundation for the future corruption of manners, and for the gradual overthrow of the state. Under him began the Peloponnesian war, which ended with the conquest of Athens by the Lacedemonians. The vanquished were obliged to receive the most mortifying conditions from the victors. Thirty supreme magistrates were placed over the city, who, under the protection of the Lacedemonian garrison, were arbitrary and cruel. After eight dreadful months, Thrasybulus overthrew this tyranny, and restored freedom and the old constitution, with some improvements.—Athens began to elevate herself again among the states of Greece, and was fortunate in her alliance with Thebes against Sparta. But this new period of power did not long continue. A more dangerous enemy rose in the North—Philip of Macedon. The Athenians had opposed him in the Phocian war, and Philip, therefore, took pos-

session of some of their colonies. The Greeks took up arms, but the battle of Cheronea (B. C. 338) was the grave of their liberty. Athens, together with the other states of Greece, was now dependent on the Macedonians. In vain, after the death of Alexander, did the Athenians attempt to regain their freedom: they were obliged to receive a Macedonian garrison in the harbor of Munychia. Antipater ordered that only those citizens who possessed an estate of more than 2000 drachmæ should take part in the administration of the government. Soon after, Athens was taken by Cassander, because it had joined his enemies, contrary to the advice of Phocion. Cassander restored the oligarchy, and named Demetrius Phalereus governor of the state, who quietly enjoyed the office for 10 years. But the Athenians, who hated him because he was not chosen by them, called Demetrius Poliorcetes to their assistance, who took the city, restored the ancient constitution, and was loaded with the most extravagant marks of honor by the Athenians; yet, when he went to war, he lost the affection of the unstable multitude, who, on his return, excluded him from the city. But he conquered Athens, forgave the citizens, and permitted them to enjoy their liberty, merely placing a garrison in the havens of Munychia and the Piræus. This garrison was afterwards driven out by the Athenians, who, for a long time, maintained their freedom. Antigonus Gonatas again conquered them, and in this situation they remained until they separated themselves from the Macedonians, and joined the Achæan league. They afterwards united with the Romans against Philip, and their new allies confirmed their freedom. When they suffered themselves to be misled to support Mithridates against the Romans, they drew upon themselves the vengeance of Rome. Sylla captured the city, and left it only an appearance of liberty, which it retained until the time of Vespasian. This emperor formally changed it into a Roman province. After the division of the Roman empire, A. belonged to the empire of the East. A. D. 396, it was conquered by Alaric the Goth, and the country devastated.—The latest and most beautiful engravings of the antiquities of this country are, "The Unedited Antiquities of Attica, comprising the Architectural Remains of Eleusis, Rhamnus, Sunium and Thoricus, by the Society of Dilettanti;" London, pub. by Longman and Murray, 1817, folio. (See *Athens*.)

ATTICUS, Herodes. (See *Herodes Atticus*.)

ATTICUS, Titus Pomponius; a Roman, belonging to the rank of *equites*, who, in the most agitated times, preserved the esteem of all parties. The Pomponian family, from which he originated, was one of the most distinguished of the *equites*, and derived its origin from Numa Pompilius. He lived in the latter period of the republic, and acquired great celebrity from the splendor of his private character. He inherited from his father and from his uncle, Q. Cæcilius, great wealth. When he attained maturity, the republic was disturbed by the factions of Cinna and Sylla. His brother Sulpicius, the tribune of the people, being killed, he thought himself not safe in Rome, for which reason he removed, with his fortune, to Athens, where he devoted himself to science. His benefits to the city were so great, that he gained the affections of the people in the highest degree. He acquired so thorough a knowledge of Greek, that he could not be distinguished from a native Athenian. When Rome had recovered some degree of quiet, he returned, and inherited from his uncle 10 millions of sesterces. His sister married the brother of Cicero. With this orator, as well as with Hortensius, he lived on terms of intimate friendship. It was his principle never to mix in politics, and he lived undisturbed amid all the successive factions which reigned in Rome. Cæsar treated him with the greatest regard, though he was known as a friend of Pompey. After the death of Cæsar, he lived in friendship with Brutus, without, however, offending Antony. When Brutus was obliged to flee from Italy, he sent him a million of sesterces, and likewise supported Fulvia, the wife of Antony, after the disastrous battles of Mutina, and therefore was spared when fortune again smiled on Antony, and the friends of Brutus generally were the victims of his vengeance. The daughter of A. was married to M. Vespasianus Agrippa, and Augustus became his friend. He often received letters both from Augustus and from Antony, when he was absent from Rome. He reached the age of 77 years without sickness. At this time, he became afflicted with a disorder which he felt to be incurable. He therefore ended his life by voluntary starvation, and was buried near the Apian way, in the grave of his uncle.

ATTILA (in German, *Etzel*); the son of Mandras, a Hun of royal descent, who followed his uncle Roas in 434, and

shared the supreme authority with his brother Bleda. These two leaders of the barbarians, who had settled in Scythia and Hungary, threatened the Eastern empire, and twice compelled the weak Theodosius II to purchase an inglorious peace. Their power was feared by all the nations of Europe and Asia. The Huns themselves esteemed A. their bravest warrior and most skilful general. Their regard for his person soon amounted to superstitious reverence. He gave out that he had found the sword of their tutelar god, and, proud of this weapon, which added dignity to his power, he designed to extend his rule over the whole earth. He caused his brother Bleda to be murdered (444), and, when he announced that it was done by the command of God, this murder was celebrated like a victory. Being now sole master of a warlike people, his unbounded ambition made him the terror of all nations; and he became, as he called himself, the *scourge* which God had chosen to chastise the human race. In a short time, he extended his dominion over all the people of Germany and Scythia, and the Eastern and Western emperors paid him tribute. The Vandals, the Ostrogoths, the Gepidæ, and a part of the Franks, united under his banners. Some historians assure us, that his army amounted to 700,000 men.—When he had heard a rumor of the riches and power of Persia, he directed his march thither. He was defeated on the plains of Armenia, and drew back to satisfy his desire of plunder in the dominions of the emperor of the East. He easily found a pretext for war, for all states which promised him a rich booty were his natural enemies, and all princes whom he hoped to conquer had broken alliances. He therefore went over to Illyria, and laid waste all the countries from the Black to the Adriatic sea. The emperor Theodosius collected an army to oppose his progress; but, in three bloody battles, fortune declared herself for the barbarians. Constantinople was indebted to the strength of its walls, and to the ignorance of the enemy in the art of besieging, for its preservation. Thrace, Macedonia and Greece, all submitted to the savage robber, who destroyed 70 flourishing cities. Theodosius was at the mercy of the victor, and was obliged to purchase a peace. One of the servants of Attila, Edekon, was tempted by a eunuch, Chrysaphius, to undertake the assassination of his master on his return to the Danube; but, at the moment of execution, his cour-

age failed him; he fell at the feet of his master, and acknowledged his criminal design. Constantinople trembled at the idea of Attila's revenge; but he was contented with reproaching Theodosius for his perfidy, and requiring the head of Chrysaphius. The emperor engaged to pay a new tribute.—A. now directed his views to Gaul. With an immense army, he passed the Rhine, the Moselle and the Seine, came to the Loire, and sat down under the walls of Orleans. The inhabitants of this city, encouraged by their bishop, Agnan (Anianus), repelled the first attack of the barbarians, and the united forces of the Romans, under their general, Aëtius, and of the Visigoths, under their king, Theodoric, compelled A. to raise the siege. He retreated to Champagne, and waited for the enemy in the plains of Chalons. The two armies soon approached each other. A., anxious for the event of the battle, consulted the soothsayers, and they assured him of a defeat. He concealed his alarm, rode through the ranks of his warriors, reminded them of their deeds, spoke of his joy at the prospect of a battle, and at the thought that their valor was to be rewarded. Inflamed by this speech, and by the presence of their leader, the Huns were impatient for battle. Both armies fought bravely. At length, the ranks of the Romans and Goths were broken through, and A. was already sure of the victory, when the Gothic prince Thorismond, the son of Theodoric, poured down from the neighboring height upon the Huns. He threw them into disorder, spread death through their ranks, and A., pressed on all sides, escaped with difficulty to his camp. This was, perhaps, the bloodiest battle which has ever been fought in Europe; for, according to contemporary historians, 106,000 dead bodies covered the field of battle. A. caused all his camp equipage and treasures to be brought together into a heap, in order to burn himself with them, in case he should be reduced to extremities. But the enemy were contented with collecting their forces during the night, and, having paid the last honors to the dead body of king Theodoric (Dietrich), which they discovered with difficulty, they saluted his son, Thorismond, king upon the field of battle. Thus A. escaped destruction. But the Franks pursued him, hanging on his rear, till he had passed the Rhine.—Rather irritated than discouraged, he sought a new opportunity to seize upon Italy, and demanded Honoria,

the sister of Valentinian III, in marriage. This princess had been separated from the court, and confined in a monastery, on account of an intrigue with Eugenius, her chamberlain. She offered her hand to A.; he accepted the proffered match, and demanded, as a dowry, half the kingdom. When this demand was refused, he attacked Italy with dreadful fury. The emperor trembled, and his ambassadors supplicated in vain. A. conquered and destroyed Aquileia, Padua, Vicenza, Verona, Bergamo, and laid waste the plains of Lombardy. The inhabitants fled to the Alps, to the Apennines, and to the small islands in the shallows (lagoons) of the Adriatic sea, where they built Venice. The emperor had no army to oppose him; the Roman people and senate had recourse to tears and supplications. Pope Leo I went with the Roman ambassadors to the enemy's camp, and succeeded in obtaining a peace. A. went back to Hungary. The Romans looked upon their preservation as a miracle, and the old chronicles relate that the threats of St. Peter and St. Paul had terrified A.—a legend which the art of Raphael and Algardi has immortalized. Not having obtained Honoria for a wife, A. would a second time have demanded her, sword in hand, if the beautiful Ildico had not been added to his numerous wives, with whom he solemnly united himself. This circumstance hindered him from fulfilling his threats. On this occasion, he gave himself up to all the extravagance of debauchery; but, on the day after the marriage, the servants and warriors, impatient to salute their master, thronged into the tent: they found Ildico veiled, sitting by the cold corpse of her husband. During the night, he had been suffocated by his own blood (453). The news of his death spread sorrow and terror in the army. His body was enclosed in three coffins—the first was of gold, the second of silver, and the third of iron. The captives, who had made the grave, were strangled.—The description that Jomandes has left us of this barbarian king reminds us of his Calmuck-Tartar origin. He had a large head, a flat nose, broad shoulders, and a short and ill-formed body. His walk was proud, his voice strong and well-toned.

ATTIRET, John Denis, a French Jesuit and painter, was born at Dole, Franche-Comté, in 1702, and died, in 1788, at Pekin, whither he had accompanied a mission. The emperor Kien-Long was so much pleased with his battle-pieces, that

he offered him the dignity of mandarin, and gave him the income thereto belonging, when A. refused the Chinese title. A. wrote a very interesting account of the emperor's gardens, of which a translation by Spence, under the name of sir Harry Beaumont, appeared in 1752.

ATTITUDE (*French*), as a term of art, signifies the position and situation of figures. Attitudes require a regular study, a part of which is a knowledge of anatomy. The art of exhibiting attitudes, at least in modern times, is of recent invention. At the end of the last century, the celebrated lady Hamilton began the practice, and, as every art begins with imitation, she imitated, with great talent, the attitudes of antique statues in many large towns of Europe, and sir William Hamilton could say that he possessed, in his wife, a whole collection of antiques. Her dress was a simple tunic, fastened with a ribbon tight under the breast, and a shawl. With these she imitated all the different draperies. Mr. Rehberg drew her attitudes, and published them in London. On the continent of Europe, this art has been carried to much perfection by Mrs. Hendel-Schütz, who exhibited the most beautiful attitudes, copied from the Greek, Egyptian, Italian and German styles of art. But she was not satisfied with imitations: she invented many attitudes, which were declared, by all the critics of the day (amongst whom was Göthe), some of the finest productions of art. Her attitudes have been drawn and published by Peroux and Ritter (Frankf. on the Maine, 1809). There has been also a male artist of the same kind, Mr. von Seckendorf (called *Patrick Peale*), who accompanied his exhibitions with lectures. He died in America.

ATTORNEY (*attornatus*, in Latin), a person appointed to do something for and in the stead and name of another. An attorney is either public or special. The former is an officer of a court, who is authorized by the laws and the rules of the court to represent suitors, without any special written authority for the purpose. The rules and qualifications, whereby one is authorized to practise as an attorney in any court, are very different in different countries and in different courts of the same country. There are various statutes on this subject in the laws of the several U. States, and almost every court has certain rules, a compliance with which is necessary, in order to authorize any one to appear in court for, and represent any party to a suit, without a special au-

thority under seal. The principle upon which these rules are founded, is the exclusion of persons not qualified by honesty, good moral character, learning and skill, from taking upon them this office. And any attorney may, by malpractice, forfeit this privilege; and the court, in such case, strikes his name from the roll of attorneys. Still this does not prevent his being a special attorney, with a specific power from any person who wishes to constitute him his representative; for every man, who is capable of contracting, has the power to confer upon another the right of representing him, and acting in his stead. An attorney of a court has authority, for and in the name of his principal, to do any acts necessary for conducting a suit, and his employer is bound by his acts.—A special attorney is appointed by a deed called a *power* or *letter of attorney*, and the deed by which he is appointed specifies the acts which he is authorized to do. It is a commission, to the extent of which only he can bind his principal. As far as the acts of the attorney, in the name of the principal, are authorized by his power, his acts are those of his principal. But if he goes beyond his authority, his acts will bind himself only; and he must indemnify any one to whom, without authority, he represents himself as an attorney of another, and who contracts with him, or otherwise puts confidence in him, as being such attorney.

ATTRACTION; the tendency, as well of the parts of matter in general, as of various particular bodies, to approach each other, to unite, and to remain united; sometimes, also, the power inherent in matter, exerting itself at the moment of approach. Experience teaches that this property is common to all matter. Even liquids cohere in their parts, and oppose any endeavor to separate them. The minute particles unite into drops; drops, if they are brought in contact, into large masses. Fluids attach themselves to solid bodies, particularly to such as have very smooth surfaces, as to glass: they rise up of themselves in fine tubes (see *Capillary Tube*), &c. Every body tends to the earth, and, if raised from its surface, falls back to it again. The plumb-line, which is usually vertical, takes an oblique direction in the vicinity of high mountains; the sea tends to the moon; the moon itself is constantly drawn towards the earth; the earth and the other planets, towards the sun. The heavenly bodies are continually subject to the simple law

of mutual attraction. The Grecian naturalists speak of attraction; Copernicus and Tycho likewise admit it; Kepler's bold and comprehensive mind first hazarded the assertion that it must be universal and mutual in all bodies; Des Cartes sought to banish it entirely from natural philosophy, as one of those occult powers which he did not acknowledge; but Newton adopted it, and determined its laws, after many years of accurate observation. Fruitless attempts have been made to explain it. The phenomenon of attraction is exhibited, either in bodies that are at perceptible distances from each other, and is then called *gravitation*; or in bodies at insensible distances, taking place between their surfaces, when it is *adhesion*; or uniting their component parts, when it is *cohesion*. (q. v.) We cannot enumerate all the particular subdivisions of attraction, but the most important are those of chemical affinities (q. v.), of magnetic and electric attractions, &c. (Respecting these, see the particular articles.) The best work on the attraction of the heavenly bodies is Newton's *Philosoph. Natural. Principia Mathematica*. On the attraction which mountains exert on the plumb-line, see von Zach's *L'Attraction des Montagnes et ses Effets sur les Fils à Plomb* (Avignon, 1814, 2 vols.) Kant's *Metaphys. Elements of Natural Science* (3d ed. Leips., 1800) treats of the nature of attraction. (For further information on the subject of attraction, see the article *Mechanics*.)

ATTRIBUTE. 1. Every quality which is ascribed to any one as characteristic.—2. The sign which indicates that quality. In this latter sense, it is synonymous with *symbol*. (q. v.)

Atwood, George, F. R. S.; an eminent mathematician, who was educated at the university of Cambridge. In 1784, he published, in one volume, 8vo., a Treatise on the Rectilinear Motion and Rotation of Bodies; with a Description of Original Experiments relative to that Subject—a work remarkable for its perspicuity, and the extensive information which it affords. About the same time, he made public an Analysis of a Course of Lectures on the Principles of Natural Philosophy, read at the University of Cambridge, which is not less valuable than the preceding. William Pitt, having attended Mr. Atwood's university lectures, conceived such an opinion of his talents and scientific information, that he engaged him to devote a considerable part of his time to financial calculations, and bestowed on him a

sinecure office, the income of which he retained from 1784 till his death, in 1807, at the age of 62, when the office which he had held was abolished. Mr. Atwood published a Dissertation on the Construction and Properties of Arches, 1801, 4to., and several other valuable treatises relating to mathematics and mechanical science.

ATTYS, or ATTYs. 1. The favorite of Cybele, who, having broken the vow of chastity which he made to the goddess, castrated himself, as a punishment for his crime. (See *Cybele*.)—2. A son of Cræsus, king of Lydia; an affecting example of filial love. He was dumb, when, seeing a soldier in a battle who had raised a sword against his father, he exerted himself so much, that the bands of his tongue gave way, and he cried out, "Soldier, kill not Cræsus!"

AUBAINE, DROIT D'. Foreigners in France, in the middle ages, were called *Albani*, or *Albini*. Some derive this word from *Albanach*, which term the Highlanders of Scotland, even now, apply to themselves; and, if this name was common to all the Gaelic tribes, or, at least, if it was used by the inhabitants of Bretagne, the German races may have applied it, from this circumstance, to all foreigners. The Romans, indeed, did not permit foreigners to inherit property—a law which the emperor Frederic I abolished, since he gave to all foreigners the right of making a will, and ordered that the effects of such as died without one should be assigned by the bishop to the foreign heirs, or, if this was not possible, should be employed for some pious purposes. France was the only country where foreigners were treated according to the maxim of law, *peregrinus liber vivit, servus moritur*. They were permitted to acquire all kinds of property, even real estate. They could not, however, obtain it by inheritance, nor bequeath it at their death. The king (by virtue of the law of aliens, *droit d'Aubaine*), in whose peace and protection they remained during life, was their only heir after death. No feudal lord could acquire this right. It was very early softened in favor of the relations who resided in the kingdom. Some cities, as Lyons, in order to favor commerce, obtained the privilege that the estate of foreigners who died in them should go to the foreign heirs, and this was agreed upon by treaties with certain states. (See the account of these states in Schlözer's *State Papers—Staatsanzeigen*—H. 31, and the later treaties in Marten's *Recueil des Traités*.) The

national assembly, by the decrees of the 6th of Aug., 1790, and the 8th and 31st of Aug., 1791, abolished this law; and, as it was acknowledged by no other country of Europe as a general rule, but was only put in force as a measure of retaliation against France, there was no necessity for a particular abrogation of the same in any European state. The French, however, were not conscious of this. They confounded their own *droit d'Aubaine* with the rule prevailing in other countries, of deducting a certain proportion of the estates of foreigners deceased; and the *droit d'Aubaine* was restored in the *Code civile* (*Code de Napoléon*, art. 11), because complaint was made that other countries, especially Prussia, had not abolished it.

—2. In England, no *droit d'Aubaine* is known. The alien can transact any business there (under the provisions of the alien act), and his property descends to his heirs, wherever they may be. Real estates alone he cannot acquire. (For further information respecting the rights of aliens in England and the U. States, see *Alien*, *Alien Act* and *Naturalization*.)

AUBE, department of; a French department in the former province of Champagne. (See *Department*.)—Aube; a river of France, which rises in the department of Upper Marne, and, running through that of Aube, passes by Bar-sur-Aube and Arcis, and falls into the Seine, near Nogent. The Aube became important, in the last war against France, as a line of military operation.

AUBER, D. F. E.; a French composer of operas, now popular, and a distinguished support of the *opéra comique* in Paris. His first opera, by means of which he made his fortune in Germany, is *La Neige* (Snow). His *Concert à la Cour* (Concert at Court) and *Le Maçon* (the Mason) are very much esteemed. His music is elegant, but not elevated, and betrays the desire of the new French composers to be piquant and novel. He seeks to unite the style of Boyeldieu, and the French opera composers, with that of Rossini.

AUBERT-DUBAYET, Jean Baptiste Anibal; born in Louisiana, Aug. 9, 1759. From the 18th year of his age, he was an officer, and fought in the service of the U. States in the war of independence. Shortly before the breaking out of the French revolution, he went to France. In 1792, he was elected president of the legislative assembly. As general of brigade, he defended Mayence, and justified himself from the charge of improperly surrendering the place. He afterwards

fought with vigor against the Vendéans, in the west of France. In the year 3 of the republic, he was appointed minister of war, and went, in the year 4, to Constantinople as French ambassador, where he died two years afterwards. He was an ardent republican, upright, and endowed with talent, but is said to have been extremely vain.

AUBIGNE, Theodore Agrippa d'; a French author, born in 1550. He early gave proofs of talent. In his 13th year, he lost his father, and fought afterwards under Henry IV, king of France, who made him a gentleman of his bed-chamber. He soon became a favorite of Henry, but when the king, thinking it necessary, favored the Catholics more than the Protestants, A. expressed his displeasure with little reserve, and, at length, lost the favor of Henry. He now retired to Geneva, where he devoted himself to literary pursuits. He wrote a *Histoire Universelle*, from 1550 to 1601, with a short account of Henry IV's death, 3 vols., folio, the first volume of which was ordered to be burned by the parliament of Paris. He died at Geneva, in 1630.

AUBREY, John, F. R. S.; an English antiquary, born at Easton-Piers, in Wiltshire, in 1626; educated at Oxford. He collected materials for the *Monasticon Anglicanum*, and afforded important assistance to Wood, the Oxford antiquary. He lost his property, and was reduced to absolute want; but a lady Long supported him till his death, about the year 1700. He published little, but left large collections of manuscripts, which have been used by subsequent writers.

AUBRY DE MONTDIDIER; a French knight of the time of king Charles V, who, according to tradition, was basely murdered, in 1371, by his companion in arms, Richard de Macaire. The murder was discovered by means of a dog of the deceased, who showed the most hostile disposition to the murderer. The king compelled Macaire to fight with his accuser, the dog, in order to decide the case; and the murderer was conquered. This story has been formed into a drama, for the German stage, called the *Dog of Aubry*, or the *Wood of Bondy*, which has been very profitable, being a very popular spectacle, and has exposed the German theatre to the most lively ridicule.

AUBURN; a post-village of New York, and capital of the county of Cayuga, in the township of Aurelius, on the great western turnpike, at the northern end of Owasco lake, 170 miles W. of Albany.

Pop., in 1825, 2982. It is a pleasant and flourishing village, and contains an academy, a court-house, a state-prison large enough to receive 1000 prisoners, a county jail, a market-house, a Presbyterian theological seminary, and four houses of public worship. The theological seminary was incorporated in 1820, and has four professors—one of Christian theology, one of ecclesiastical history and church government, one of Biblical criticism, and one of sacred rhetoric. The number of students, in 1825, was 47. The building appropriated to the seminary is a large stone edifice, containing rooms for students, a chapel, and valuable library.

AUCKLAND, William Eden, lord; a statesman who had great influence in Pitt's ministry, and was employed in important embassies. He began his career, in 1778, as a mediator between the mother country and the insurgent colonies in North America. He was accompanied by lord Howe and sir Henry Clinton, G. Johnstone and lord Carlisle, upon this important embassy; but the result did not answer the expectations which had been formed from the talents of these distinguished men, and nothing was left for England but to acknowledge the independence of the colonies. Afterwards, as a member of parliament, he had a great influence in the reform of the penal laws, and, with Howard and Blackstone, in the organization of a new system of police, and a better mode of treating prisoners. He subsequently held the important post of secretary of state for Ireland, and, in 1785, was ambassador extraordinary to the French court, to negotiate a commercial treaty, which was concluded in 1786. During the first year of the French revolutionary war, he was ambassador extraordinary to the states general of the Netherlands; and, in this capacity, he had the greatest influence on the measures which the crowd of events was constantly rendering more complicated. After his return, his conduct was subjected to an investigation by parliament, and was declared to be unexceptionable. He died in 1814.

AUCTION is a public sale, to the party offering the highest price, where the buyers bid upon each other; or to the bidder who first accepts the terms offered by the vender, where he sells by reducing his terms until some one accepts them. This mode of sale was in use among the Romans, called *sub hasta*, from its being, in early times, a sale of the spoils taken in war, under a spear erected as the signal

of the auction. The same signal was afterwards used in other sales, which were made under the superintendence of particular tribunals. This mode of selling is subject to particular regulations, by the laws of many communities, the object of which is to prevent frauds, or to levy a tax. In the time of lord Mansfield, a question was made in the case of *Bexwell vs. Christie* (Cowper's Reports, p. 395,) whether a sale by auction was fair, at which some one bid for the owner. The subject was treated as being, in some measure, a question of conscience, upon the supposition that the real bidders supposed themselves to be bidding only against other real bidders; and the purchaser at the sale, in that case, was held not to be bound by his bid, because there had been by-bids on behalf of the vender. But the decision, in that case, was subsequently overruled by lord Rosslyn, in the case of *Conolly vs. Parsons* (3 Vesey Jr.'s Reports, p. 625), and again by the master of the rolls in *Bramley vs. Alt* (3 Vesey Jr.'s Reports, p. 620), with one qualification, however, in this latter case, viz., that if none bid, except by-bidders or puffers, against one real bidder, to whom the article was struck off, he was not bound by the purchase. No similar decision has been made in the U. States, and there seems to be no reason for supposing that a sale by auction would be void on this account, unless it were a violation of the conditions upon which the auction was announced. It is evident that the fairness or unfairness of this proceeding must depend, in any case, very much upon a compliance with the understanding entertained, or the conditions laid down in respect to the sale; and, certainly, it is not universally understood that no bid will be made for the vender. In regard to a tax upon sales by auction, there does not appear to be any good ground for it in principle, and the same objections lie against this tax that are made to the Spanish *alcavala* (q. v.), or tax on private sales. The vender must pay the tax, and a man's selling goods is not, in general, a proof, nor the value of the goods a measure, of his ability to pay a tax. So far from this is the fact, that, in very many instances, the poverty or straitened circumstances of the vender are the cause of his putting up his property at auction. When these sales are taxed, therefore, the law makes many exceptions, with the intention of preventing the tax from falling upon persons who sell from necessity, rather than the expectation of making a profit.—

Much discussion has been had upon the effect of sales by auction, in an economical point of view; as, whether they give a facility to the introduction of foreign manufactures, to the discouragement and depression of the domestic, with which they come into competition; and whether they have a favorable or unfavorable influence upon the course of production and consumption, considered as a part of the general system of business and economy, independently of their effect in respect to the introduction of foreign fabrics or products. No general answer can be made to these questions, since it must, in each case, depend, in some degree, upon the manner in which the auctions are conducted. But, supposing them to be conducted with perfect fairness and honesty, it must then depend upon the condition of the industry of the community. The German fairs have an effect similar to that of auction sales. An extensive fair, or sale by auction, by showing, and, in effect, exaggerating the surplus or deficiency of articles, aggravates the stagnation in one case, and enhances the prices in the other. All such fluctuations tend to check and destroy the production that is carried on upon a small scale. Those who carry it on upon the largest scale, whether domestic or foreign, will drive out the smaller ones, since they will, as has been invariably proved, push on their business, in spite of the sacrifices which they may be obliged to make, and they gain an impetus which is not easily checked. Whether auctions are injurious or not, in either respect, will depend, therefore, upon the scale on which they are conducted, and the extent of different systems or processes of production, which are thus brought into competition. Where there is a competition, they undoubtedly tend to make it more close and direct, and if one of the rivals has any advantage at the time being, he is likely to destroy the other; or, if there be no other advantage on either side, the party willing and able to make the greatest sacrifices will eventually keep possession of the market.

AUDE, department of; a French department in the former province of Languedoc. (See *Department*.)

AUDEBERT, Jean Baptiste, united, in a high degree, the talents of an engraver with the knowledge of natural history. He was born at Rochefort in 1759, went, at the age of 18, to Paris, to learn drawing and painting, and made himself a skilful miniature painter. In 1789, he became

acquainted with Gigot d'Orcy, a great lover and promoter of natural history, who possessed a vast collection, the rarest specimens of which he employed A. to paint, and afterwards sent him to England and Holland, whence he brought back a number of designs, which have been used in Olivier's History of Insects. This occupation awakened in him a taste for natural history. He now undertook some works which laid the foundation of his fame. The first was, *Histoire Naturelle des Singes, des Makis et des Galeopitèques* (Paris, 1800, folio), in which he shows himself an able draughtsman, engraver and writer. With regard to coloring, so essential in natural history, he brought it to a greater perfection than it had ever before attained. Not satisfied with laying different colors on the same plate, so as to produce a kind of painting, he went farther, and, instead of water-colors, used the more durable oil-colors. He carried his art to still greater perfection by using gold in his impressions, the color of which he changed in different ways, in order to imitate the splendor of his patterns. Natural history was greatly benefited by his work, the splendor of which was astonishing. His *Histoire des Colibris, des Oiseaux-Mouches, des Jacamars et des Promerops* (Paris, 1802, folio), is esteemed the most complete work that has appeared in this department. Fifteen copies were struck off with golden letters. Scarcely was this work begun, when A. formed new plans, for the execution of which the longest life would hardly have been sufficient. He died in 1800, when he had scarcely begun the *Histoire des Grimpereaux et des Oiseaux de Paradis*. Both works were excellently finished by Desray, who was in possession of the materials, and the process for carrying on the work. A. rendered much assistance in the publication of Levaillant's African Birds. He conducted the impressions of the plates as far as the thirteenth number.

AUDIENCE is used to signify the ceremonies, practised in courts, at the admission of ambassadors and public ministers to a hearing.—It is also the name of courts of justice or tribunals which were established by the Spaniards in America, and formed upon the model of the court of chancery in Spain.—It is also the name of one of the ecclesiastical courts in England, which is held wherever the archbishop calls up a cause to be argued before himself.

AUDITOR, in the language of the ancient law; an officer of the courts, whose duty

it was to interrogate the parties. In a narrower sense, an officer who overlooks accounts. The *auditeur du châtelet*, in France, was a member of that court of justice for the city of Paris. (See *Châtelet*.) This court decided in causes of small importance (where the amount in dispute did not exceed 50 francs.) In the 11 high offices of accounts (*chambres des comptes*) of France, the members were divided into *conseillers-maitres* and *conseillers-auditeurs*, as the German colleges (departments of government) are into counsellors and assistants. A similar division in the courts of justice was introduced by Napoleon, viz., that of *conseillers* and *juge-auditeurs*, which distinction still exists. In England, this term is applied to those who examine accounts. The chief accountant's office is called *office for auditing the public accounts*. The members of the Spanish courts of justice are generally called *oydores*. This appellation also obtains among the papal officers. The 12 counsellors of the renowned *rota Romana* (q. v.) are called *auditores sacri palatii apostolici*, or *auditores rote*. In the papal college of finance, the *camera apostolica*, at the head of which is the *cardinale camerlingo*, there is an *auditor cameræ*, who exercises the power of the college in causes of minor importance.

AUERBACH, Henry; born in 1482, at a place of the same name in Bavaria; the builder of the Auerbach-court and cellar at Leipsic, mentioned in Göthe's *Faust*. His real name was *Stromer*, but, according to the fashion of his time, he took the name of the place where he was born. The building was erected in 1530, and tradition reports that, five years after, doctor Faust was seen riding out of it on a barrel of wine. This tale Göthe has made use of in his famous poem. The building was known also at the Leipsic fairs as one of the most frequented places for the exhibition of merchandise.

AUERSTÄDT, battle at, Oct. 14, 1806. (See *Jena*.)

AUGEAN CODEX (*Codex Augiensis*); a Greek and Latin MS. of the Epistles of St. Paul, supposed by Michaelis to have been written in the ninth century, and so called from *Augia Major*, the name of a monastery at Rheinau, to which it belonged. After passing through several hands, it came, in 1718, to doctor Bentley, who purchased it for 250 Dutch florins, and it is now in the library of Trinity college, Cambridge. This MS. (noted *F*. in the second part of Wetstein's New Test.) is written in uncial letters, and without

accents; not *continua serie*, as is common with the more ancient copies, but with intervals between the words, and a dot at the end of each. The Greek text is written in capitals, the Latin in Anglo-Saxon letters; whence it is tolerably clear that it must have been written in the west of Europe, where that formation of the Latin letters, usually called *Anglo-Saxon*, was in general use between the 7th and 12th centuries. The manuscript is defective from the beginning to Romans iii. 8, and the Epistle to the Hebrews is only found in the Latin version.

AUGEAS, in fabulous history; a king of Elis, famed for his stable, which contained 3000 oxen, and had not been cleaned for 30 years. Hercules was desired to clear away the filth in one day, and A. promised, if he performed it, to give him a tenth part of the cattle. This task Hercules is said to have executed by turning the river Alpheus, or, as some say, the Peneus, through the stable, which immediately carried away the dung and filth. A. not only refused to perform his engagement, pretending that Hercules had used artifice, and experienced no labor or trouble, but banished his own son, Phyleus, from his kingdom, for supporting the claims of the hero. Upon this, a war commenced, and Hercules conquered Elis, put A. to death, and gave his kingdom to Phyleus. A. has been called the *son of Sol*, because *Elis* signifies the sun. After his death, he received the honors usually paid to heroes.

AUGER, Athanase, born at Paris, Dec. 12, 1734, a great linguist, was a clergyman, and professor of rhetoric in the college of St. Rouen. The bishop de Noé made him his chief vicar, and called him, in jest, his *grand vicaire in partibus Atheniensium*, on account of the zeal with which the abbé pursued the study of Grecian antiquities. Learning proved its worth in his character and life. He lived in a simple style in the midst of Paris, retired, and free from anxiety, or wish to attain a higher station. He divided a moderate income with his needy family. It was said of him that he had never spoken ill of any one, and no one had spoken ill of him. As a member of the academy of inscriptions, he remained true to his principles of honest candor, and was no less beloved than respected by the whole society. The breaking out of the revolution aroused the sympathies of a man who lived, by his daily studies, in Greece and Rome. He hoped for the abolition of crying abuses, and for the

introduction of true freedom. This expectation appears in several of his writings. He died before the occurrence of any events which could have shaken his faith, Feb. 7, 1792. His writings, partly translations from the ancient languages, and partly political, were published from his papers, at Paris, in 30 vols. Among his political works, the most distinguished are *Projet d'Éducation publique précédé de quelques Réflexions sur l'Assemblée Nationale*, 1789; and *De la Constitution des Romains sous les Rois et au Temps de la République*, 1792, the product of 30 years' labor, which first appeared after his death, with the rest of his posthumous works.

AUGEREAU, Pierre François Charles, duke of Castiglione, marshal of France; son of a fruit merchant; born at Paris, 1757; served as a carabinier in the French army; went from thence into the Neapolitan service, established himself at Naples, in 1787, as a fencing-master, and was banished thence, in 1792, with the rest of his countrymen. He served, afterwards, as a volunteer in the army of Italy, in which his talents and courage soon gained him promotion. He distinguished himself, in 1794, as general of brigade in the army of the Pyrenees, and, in 1796, as general of division in the army of Italy. He took the pass of Millesimo; made himself master, April 16, of the intrenched camp of the Piedmontese at Ceva, afterwards of that at Casale; threw himself on the bridge of Lodi, and carried it with the enemy's intrenchments. June 16, he passed the Po, and made prisoners the papal troops, together with the cardinal legate and the general's staff. Aug. 1, he came to the assistance of Masséna; maintained, during a whole day, a most obstinate struggle against a superior number of troops, and took the village of Castiglione, from which he derived his ducal title. Aug. 25, he passed over the Adige, and drove back the enemy as far as Roveredo. In the battle of Arcole, when the French columns wavered, A. seized a standard, rushed upon the enemy, and gained the victory. The directory bestowed this standard on him Jan. 27, 1797. Aug. 9, he was named commander of the 17th military division (division of Paris), in place of general Hatry. He was the instrument of the violent proceedings of the 18th of Fructidor, and was saluted, by the decimated legislative body, as the savior of his country. In 1799, he was chosen a member of the council of five hundred, and, therefore, resigned his command. He then obtained from the consul, Bon-

aparte, the command of the army in Holland. He led the French and Batavian army on the Lower Rhine to the support of Moreau, passed the river at Frankfort, and fought with the imperial general, with various success, until the battle of Hohenlinden ended the campaign. In October of 1801, being superseded by general Victor, he remained without employment till 1803, when he was appointed to lead the army, collected at Bayonne, against Portugal. When this enterprise failed, he went back to Paris, and, May 19, 1804, was named marshal of the empire, and grand officer of the legion of honor. In July of this year, the king of Spain sent him the order of Charles III. At the end of 1805, he was at the head of a corps of the great army in Germany, formed of troops collected under his command at Brest. He contributed to the successes which gave birth to the peace of Presburg, and, in March 1806, had possession of Wetzlar and the country around, until, in the autumn of this year, a new war called him to Prussia. The wounds which he received in the battle of Eylau (q. v.) compelled him to return to France. Early in 1811, Napoleon gave him the command of a corps in the army of Spain. Afterwards he returned from thence, and remained without any employment until July, 1813, when he led the army in Bavaria against Saxony, where he took part in the battle of Leipsic. At the entrance of the allies into France, his duty was to cover Lyons. Louis XVIII named him a peer. After the fall of Napoleon, A. used reproachful language respecting him in a proclamation to his army. Napoleon, therefore, on his landing in 1815, declared him a traitor. A., however, expressed himself in his favor, but took no active part in the new order of things. After the return of the king, he took his place again in the chamber of peers, sat among Ney's judges, was for a while unoccupied, and died, June 11, 1816, at his estate La Houssaye, of the dropsy.

AUGIAs. (See *Augeas*.)

AUGITE (*pyroxene*); the name of a species in mineralogy, interesting on account of its wide distribution and the numerous varieties of form and color under which it appears. When crystallized, it assumes the form of short, slightly rhombic prisms, with their lateral edges replaced, and terminated at one or both extremities by numerous planes; and, when massive, is generally capable of mechanical division, in lines parallel to the sides

of an oblique rhombic prism of $87^{\circ} 5'$ and $92^{\circ} 5'$, its primitive form. Its specific gravity is from 3.23 to 3.34; lustre vitreous; and hardness sufficient to scratch glass. Different names have been applied to some of its most remarkable varieties; as, *diopside*, to greenish-white, transparent crystals; *sahlite*, when it is in imperfectly prismatic and foliated masses; and *coccolite*, when in small, slightly-cohering grains. This species occurs abundantly in black crystals in basalt and lava, and enters into the regular composition of many rocks, besides being found in veins in primitive rocks. It is composed essentially of silic, lime and magnesia, to which oxyde of iron is sometimes added; and is one of those few mineral substances, whose composition may be imitated by the artificial mixture of its constituents, and subjecting them to fusion. Its native crystals, likewise, when fused, and suffered to cool slowly, reassume their original shape and color. A transparent green variety, found at Zillerthal, in the Tyrol, is used in jewelry.

AUGSBURG, the capital city in the Bavarian circle of Upper Danube, formerly a free city of the empire, lies between the Wertach and Lech, and is the residence of a bishop. It has 3690 houses, and 29,000 inhabitants, of whom 12,000 are Protestants. Lon. $10^{\circ} 55' E.$; lat. $48^{\circ} 22' N.$; 35 miles N. W. of Munich. The curiosities are the bishop's palace, where the confession of Augsburg was signed in 1530; the city-house, with the golden hall, esteemed the finest in Germany; the Fuggerei (106 small houses, built by two brothers, by the name of Fugger, for the residence of the poor inhabitants of the city, a monument of the benevolence of those immensely rich citizens); the cathedral church, and the gallery of paintings of the German schools, &c. The city has considerable carrying trade and dealings in bills of exchange, important commercial transactions with Vienna and Italy, and is likewise a mart for the wines of southern Germany and Italy. Whether A. bore the name of *Damasia* before the entrance of the Romans into the country is uncertain, but it is well settled that the emperor Augustus, about 12 B. C., after conquering the Vindelici, placed a colony there, which must be considered as the origin of the present A. After the division of the empire of the Franks, A. came under the dominion of the duke of Suabia, and, becoming rich by its commerce, finally purchased its freedom of the duke, which was afterwards confirm-

ed by the emperor. The city now reached the summit of its prosperity, and was, together with Nuremberg, a great mart for the commerce between the north and south of Europe, until, towards the end of the 15th century, the discoveries of the Portuguese and Spaniards gave a new direction to the whole commerce of the world. In 1368, in consequence of the opposition of the lower classes of citizens, the aristocratic government was abolished, and a democratic form substituted, which continued till 160 years later, when the nobles, with the assistance of the emperor, Charles V., again obtained the supremacy. A. is still one of the principal manufacturing places in Germany.

AUGSBURG CONFESSION, presented by the Protestants, at the diet of Augsburg, 1530, to the emperor and the diet, and, being signed by the Protestant states, was adopted as their creed. Luther made the original draught at the command of John, elector of Saxony, at Torgau, in 17 articles; but, as its style appeared to be too violent, it was altered by Melancthon, at the command of the elector, and in compliance with the wishes of the body of Protestant princes and theologians. Thus changed, it was presented and read in the diet, June 25. The original is to be found in the imperial Austrian archives, and the edition of the Augsburg confession, at Wittenberg, 1531, was printed from this. Afterwards, Melancthon arbitrarily altered some of the articles, and a new edition, with his changes, appeared in 1540. There now arose a division between those who held the original and those who held the altered Augsburg confession. The former is received by the Lutherans, the latter by the German Reformed, who thereby secured to themselves, at the religious peace of 1555, the privileges extended only to the adherents of the Augsburg confession, and kindred sects.

AUGSBURG GAZETTE. (See *Allgemeine Zeitung*.)

AUGURS; certain priests among the Romans, who, from the flight and the cries of birds, from lightning, &c., predicted future events, and announced the will of the gods. They were consulted respecting both public and private concerns, and their respectability, as well as their influence in the state, was very great. By merely pronouncing the words *Alio die* (another day), they could dissolve the assembly of the people, and annul all the decrees which had been passed at the meeting. Their answers, as well as the signs by which they governed themselves,

were called *auguries*. Public auguries were, 1, appearances in the heavens, as thunder and lightning. The augur remarked the place where the flash of lightning originated, and where it disappeared. He stood on an elevated place (*arx, templum*), where he had a full view of all around him. After the sacrifices had been made, and solemn prayers offered, he took his station, his face towards the east, his head covered, and pointing with his staff (*lituus*) to that portion of the heavens within the limits of which he proposed to make his observations. On the left were the propitious, on the right the unpropitious omens. 2. The cries and the flight of birds. Predictions founded on the observation of birds were properly called *auspices*, and were very common even among the Greeks, who took them from the Chaldeans. They afterwards became so important, that, among the Romans, nothing of consequence in peace or in war was undertaken without consulting birds, whose continual flight was supposed to give them universal knowledge. They were propitious or unpropitious, either from their species or from the circumstances in which they appeared. The birds of a prophetic character were divided into two principal classes—those whose flight and those whose cry was indicative of future events. In the latter class were included the raven, the crow, the night-owl, the cock; in the former were the eagle, the crow, the raven, the kite and the vulture. The two last were always unpropitious; the eagle, on the contrary, was propitious when he flew from left to right; the crow and the raven were propitious on the left and unpropitious on the right. 3. The willingness or unwillingness of chickens to eat was also ominous. The former was interpreted as a good omen, the latter as a bad one. Chickens were made use of particularly in war; therefore a pontifex, some augurs and haruspices (see *Aruspex*), together with a *pullarius* with a hen-coop, were attached to the army. Besides these three principal classes, certain omens were drawn from quadrupeds; e. g., if a beast crossed one's path, or was seen in an unusual place, and from many occurrences more or less uncommon, e. g., sudden melancholy, sneezing, spilling the salt on the table, &c. The augurs explained such signs, and taught how the gods were to be appeased. The right of taking the auspices, that is, the right to inquire of the gods, by certain signs, how the war would terminate, belonged only

to the commander-in-chief. The inferior officers fought only under his auspices; that is, the declaration which he issued was binding upon them, and the fortunate or the unfortunate issue of the war was attributed to him alone.

AUGUST; the name of the eighth month from January, inclusive, and the sixth of the Roman year, which began with March. It was called *Sextilis*, till the emperor Augustus, in consideration of the many instances of good fortune which had happened to him in this month, affixed to it his own name.

AUGUSTA; the name of a very great number of ancient places; as, Augusta Treverorum, now *Treves*; Augusta Ausciorum, now *Auch*; Augusta Taurinorum, now *Turin*; Augusta Suessanum, now *Soissons*, &c. *Augusta* also is the name of many modern places and rivers in South America.

AUGUSTA; a post-town of Maine, on the river Kennebec, 56 miles N. N. E. Portland, 168 N. E. Boston; population, in 1810, 1805; in 1820, 2457. It is a pleasant and flourishing town, and has, by an act of the state legislature, been constituted the seat of the state government after January 1, 1832. Here is an elegant bridge across the Kennebec, consisting of two arches, each 180 feet long. The river is navigable to A. for vessels of 100 tons.

AUGUSTA; a city of Georgia, opposite to Hamburg, in South Carolina, with which it is connected by a bridge; 87 miles E. N. E. Milledgeville, 123 N. N. W. Savannah, 138 W. N. W. Charleston; lon. 80° 46' W.; lat. 33° 33' N; population, in 1810, 2476; and in 1827, about 5000. It is situated on an elevated plain. The streets are wide, intersecting each other at right angles, and are ornamented with trees. The houses are mostly of brick, and many of them are spacious and elegant. Among the public buildings are a city-hall, an academy, a court-house, a theatre, an hospital, two markets and six houses of public worship. A. is favorably situated for trade, and has a very flourishing commerce. More than 100,000 bags of cotton are annually deposited here, and hence conveyed down the river to Savannah and Charleston, for northern and European markets.

AUGUSTIN, or AUSTIN, Saint, called the *apostle of the English*, flourished at the close of the sixth century. He was sent, with 40 monks, by Gregory, to introduce Christianity into the Saxon kingdoms. He was kindly received by Ethelbert, king of Kent, whom he soon converted;

and such was his success with his subjects, that he is said to have baptized 10,000 in one day. This success may be attributed to his reputation of miraculous power in the restoration of sight and life, more probably than to any other cause. He has the merit of allowing no coercive measures to be used in the propagation of the gospel. Elated by the rapid progress he had made, A. became ambitious of possessing the supreme authority over the English churches as archbishop of Canterbury, and received the archiepiscopal pall from the pope, with instructions to establish 12 sees in his province. The British bishops in Wales, successors of the British converts of the second century, had never submitted to the jurisdiction of the church of Rome, and A. endeavored to persuade them to unite with the new English church. They asserted their independence, and 1200 Welsh monks were soon after put to the sword, as is thought, at the instigation of A. He died in 604, or 608, or 614, and his relics have been carefully preserved in the cathedral of Canterbury.

AUGUSTINE, Saint, one of the most renowned fathers of the Christian church, born at Tagaste, a small city in Africa, Nov. 13, 354, during the reign of the emperor Constantine, has related his life in the work to which he gave the title of *Confessions*. His parents sent him to Carthage to complete his education, but he disappointed their expectations by his neglect of serious study and his devotion to pleasure. In his 16th year, he became very fond of women. For 15 years, he was connected with one, by whom he had a son. He left her only when he changed his whole course of life. A book of Cicero's, called *Hortensius*, which has not come down to our times, led him to the study of philosophy; and, when he found this did not satisfy his feelings, he went over to the sect of the Manichæans. He was one of their disciples for nine years; but, after having obtained a correct knowledge of their doctrines, he left them, and departed from Africa to Rome, and thence to Milan, where he announced himself as a teacher of rhetoric. Saint Ambrose was bishop of this city, and his discourses converted A. to the orthodox faith. The reading of Paul's Epistles wrought an entire change in his life and character. The Catholic church has a feast (May 3) in commemoration of this event. He retired into solitude, wrote there many books, and prepared himself for baptism, which he received in the 33d year of his

life, together with his son Adeodatus, from the hands of Ambrose. He returned to Africa, sold his estate, and gave the proceeds to the poor, retaining only enough to support him in a moderate manner. As he was once present in the church at Hippo, the bishop, who was a very old man, signified a desire to consecrate a priest to assist and succeed him. At the desire of the people, A. entered upon the holy office, preached with extraordinary success, and, in 395, became bishop of Hippo. He entered into a warm controversy with Pelagius (see *Pelagians*) concerning the doctrines of free will, of grace and of predestination, and wrote a book concerning them. A. maintained that men were justified merely through grace, and not through good works. (See *Grace*.) He died, Aug. 28, 403, while Hippo was besieged by the Vandals. There have been fathers of the church more learned, masters of a better language and a purer taste; but none have ever more powerfully touched the human heart, and warmed it towards religion. Painters have therefore given him for a symbol a flaming heart. Augustus Neander published, in Berlin, 1823, *Sancti Augustini Confessionum Libri XIII.* A. left a monument of his zeal for the monastic life by founding some monasteries for monks and nuns in Africa, which were shortly after destroyed by the Vandals. This order was governed by strict rules, but was very different from the one called, after him, *Augustine*. The different branches of the Augustine order were first established in the 11th and 12th centuries, and their rules were the work of the popes and priors. They did not constitute a regular order, however, till 1256, and, in 1567, were made the fourth in rank among the mendicant orders, coming after the Dominicans, Franciscans and Carmelites. They wear black cowls. Before the reformation, they had about 2000 convents, containing 30,000 monks, and also 300 nunneries. After the reformation brought about by Luther, a brother of their order, they were separated into many considerable brotherhoods, among which the barefooted monks, in Italy, Spain and France, were the most numerous. At the beginning of the 18th century, the order numbered 42 provinces. The number of convents of this order is now smaller. They are to be found in Italy, Spain, Portugal, in the Austrian states, and in America. In 1817, Augustine nuns of the congregation of Our Lady appeared again in Paris.

Their number is 32; they support themselves by their industry, educate 200 poor children, and possess no landed property.

AUGUSTINE, St.; a city and sea-port in East Florida. (See *Saint Augustine*.)

AUGUSTULUS (Romulus Momyllus, surnamed *Augustulus*); son of Orestes, a general of the Roman emperor Julius Nepos. Orestes deposed the emperor, and placed his son upon the throne, in 475. In the following year, Odoacer, a commander of the German forces in the Roman service, revolted, put Orestes to death, obliged A. to resign, and thus put an end to the Roman empire in the West. During the 20 years of the Roman empire which succeeded the murder of Valentinian III, no less than nine emperors are mentioned.

AUGUSTUS (Caius Julius Cæsar Octavius); originally called *Caius Octavius*; son of Caius Octavius and Accia, a daughter of Julia, the sister of Julius Cæsar. The Octavian family originated at Velletri, in the country of the Volscians. The branch to which Octavius belonged was rich and distinguished. His father had risen to the rank of senator, and had gone to Macedonia, after being chosen prætor, where he was very distinguished as a civil and military officer. Octavius was born during the consulate of Cicero, 65 B. C. He lost his father when young, but was very carefully brought up at Rome by his mother, and L. M. Philippus, the second husband of Accia. His talents gained him the regard of his great uncle, Julius Cæsar, who declared himself willing to adopt him for his son, in case he himself should remain without children. Octavius was at Apollonia, in Epirus, where he was studying eloquence, under the renowned orator Apollodorus, when he received the news of the tragical death of his uncle, and of his having adopted him as his son. Notwithstanding the anxiety of his friends, he went over to Italy, in order, if circumstances should favor him, to satisfy the hopes which he had entertained from being adopted by Julius Cæsar. When he landed at Brundisium, deputies from the veterans collected there came to him. Conducted in triumph to the city, and saluted as the heir and avenger of Cæsar, he made his adoption publicly known, and took the name of his uncle, adding to it that of *Octavianus*. He placed himself, then only 19 years old, at the head of the veterans, possessed himself of all the public money in Brundisium, and advanced through Campania to Rome. Here there were

two parties, that of the republicans, who had killed Cæsar, and that of Antony and Lepidus, who, under the pretence of avenging him, strove to establish their own authority. The latter party became victorious, and the consul, Antony, exercised almost unlimited power. Octavius addressed himself first to Cicero, who had retired to his villa at Cumæ, being desirous to gain this great orator, always beloved by the people, and whom Antony hated and feared. From thence he went to Rome, where the greatest part of the magistrates, soldiers and citizens came to meet him, Antony, alone, paying no attention to his return. After Octavius had caused his adoption to be confirmed in the most solemn manner, he went to Antony, begged his friendship, and demanded of him the inheritance left him by Cæsar, in order to pay the legacies mentioned in his will. Antony, at first, haughtily refused to acknowledge his claims, but afterwards changed his demeanor, when he found the influence of Octavius continually increasing, and his own proportionably diminishing. There could be no lasting union between two equally ambitious rivals. Their hearts cherished reciprocal hatred and jealousy; and their enmity was so little a secret, that Octavius was accused of having wished to get Antony murdered. How the latter went to Cisalpine Gaul, besieged Mutina, and was declared an enemy to his country while absent from Rome, how Octavius, who had obtained the most powerful party in the senate, accompanied the consul sent against Antony, and, after the death of the consul, took the chief command; how he, afterwards, when Antony, together with Lepidus, entered Italy at the head of a powerful army, united with him; how a triumvirate was formed by the three generals; and how, after dreadful scenes of blood, in Rome and the rest of Italy, they defeated the republican army under Brutus and Cassius, in Macedonia;—all this is contained in the article on *Antony*. Antony honored the memory of Brutus, but Octavius insulted his corpse. After his return to Rome, he satisfied the avarice of his soldiers by the division of the conquered lands. This division caused great disturbances. In the midst of the stormy scenes which convulsed Italy, he was obliged to contend with Fulvia, whose daughter, Clodia, he had rejected, and with Lucius, the brother-in-law of Antony. After several battles, Lucius threw himself into the city of Perugia, where he was soon after obliged

to surrender. The city was given up to be plundered, and 300 senators were condemned to death, as a propitiatory sacrifice to the manes of the deified Cæsar. After the return of Antony, an end was put to the proscriptions. Octavius allowed such of the proscribed persons as had escaped death by flight, and whom he no longer feared, to return. There were still some disturbances in Gaul, and the naval war with Sextus Pompeius continued for several years. After his return from Gaul, Octavius married the famous Livia, the wife of Claudius Nero, whom he compelled to resign her, after he himself had divorced his third wife, Scribonia. Lepidus, who had hitherto retained an appearance of power, was now deprived of his authority, and died, as a private man, 13 B. C. Antony and Octavius now divided the empire. But, while the former, in the East, gave himself up to a life of luxury, the young Octavius pursued his plan of making himself sole master of the world. He especially strove to obtain the love of the people. He showed mildness and magnanimity, without the appearance of striving after the highest power, and declared himself ready to lay down his power when Antony should return from the war against the Parthians. He appeared rather to permit than to wish himself to be appointed perpetual tribune—an office which gave him supreme power. The more he advanced in the affections of the people, the more openly did he declare himself against Antony. By making public a will, wherein his rival appointed his sons by Cleopatra his heirs, he stirred up the ill-will of the Romans against him. Availing himself of this feeling, Octavius declared war against the queen of Egypt, and led a considerable force, both by sea and land, to the Ambracian gulf, where Agrippa (q. v.) gained the naval victory of Actium (q. v.), which made Octavius master of the world, B. C. 31. He pursued his rival to Egypt, and ended the war, after he had rejected the proposal of Antony to decide their differences by a personal combat. Cleopatra and Antony killed themselves. Octavius caused them to be splendidly buried. A son of Antony and Fulvia was sacrificed, to ensure his safety. Cæsarion, a son of Cæsar and Cleopatra, shared the same fate. All the other relations of Antony remained uninjured, and Octavius, on the whole, used his power with moderation. He spent two years in the East, in order to arrange the

affairs of Egypt, Greece, Syria, Asia Minor and the islands. On his return to Rome, he celebrated a triumph for three days in succession. Freed from his rivals and enemies, and master of the world, he was undecided concerning the way in which he should exercise his power in future. Agrippa, whose victory had given him universal dominion, counselled him to renounce his authority. Mæcenas opposed this; and Octavius followed his advice, or rather his own inclinations. In order to make the people willing to look upon him as an unlimited monarch, he abolished the laws of the triumvirate, beautified the city, and exerted himself in correcting the abuses which had prevailed during the civil war. At the end of his seventh consulship, he entered the senate-house, and declared his resolution to lay down his power. The senate, astonished at his moderation, besought him to retain it. He yielded to their pressing entreaties, and continued to govern through them. He now obtained the surname of *Augustus*, which marked the dignity of his person and rank, and united, by degrees, in himself, the offices of imperator, or commander-in-chief by sea and land, with power to make war and peace; of proconsul over all the provinces; of perpetual tribune of the people, which rendered his person inviolable, and gave him the power of interrupting public proceedings; and, in fine, of censor, and pontifex maximus, or controller of all religious matters. The laws themselves were subject to him, and the observance of them depended upon his will. To these dignities we must add the title of *father of his country*. Great as was the power given to him, he exercised it with wise moderation. It was the spirit of his policy to retain old names and forms, and he steadfastly refused to assume the title of *dictator*, which Sylla and Cæsar had made odious.—A. conducted many wars in Africa, Asia, and particularly in Gaul and Spain, where he triumphed over the Cantabrians after a severe struggle. His arms subjected Aquitania, Pannonia, Dalmatia and Illyria, and held the Dacians, Numidians and Ethiopians in check. He concluded a treaty with the Parthians, by which they gave up Armenia, and restored the eagles taken from Crassus and Antony. At the foot of the Alps he erected monuments of his triumphs over the mountaineers, the proud remains of which are yet to be seen at Susa and Aosta. After he had established peace throughout the empire, he closed (for the

third time since the foundation of Rome) the temple of Janus, B. C. 10. But this peace was interrupted, A. D. 9, by the defeat of Varus, who lost three legions in an engagement with the Germans, under Arminius, and killed himself in despair. The information of this misfortune greatly agitated A. He let his beard and hair grow, and often cried out, in the deepest grief, "O Varus, restore me my legions!" Meanwhile the Germans were held in check by Tiberius. During the peace, A. had issued many useful decrees, and abolished abuses in the government. He gave a new form to the senate, employed himself in improving the manners of the people, particularly by promoting marriage, enacted laws for the suppression of luxury, introduced discipline into the armies, and order into the games of the circus. He adorned Rome in such a manner, that it was truly said, "He found it of brick, and left it of marble." He also made journeys, as Velleius says, every where, to increase the blessings of peace: he went to Sicily and Greece, Asia Minor, Syria, Gaul, &c.: in several places he founded cities and colonies. The people erected altars to him, and, by a decree of the senate, the month Sextilis was called *August*. Two conspiracies, which threatened his life, miscarried. Cæpio, Murena and Egnatius were punished with death: Cinna was more fortunate, receiving pardon from the emperor. This magnanimity increased the love of the Romans, and diminished the number of the disaffected; so that the master of Rome would have had nothing to wish for, if his family had been as obedient as the world. The debauchery of his daughter Julia gave him great pain; and he showed himself more severe against those who destroyed the honor of his family, than against those who threatened his life. History says, that, in his old age, he was ruled by Livia, the only person, perhaps, whom he truly loved. He had no sons, and lost by death his sister's son, Marcellus, and his daughter's sons, Caius and Lucius, whom he had appointed his successors. Also, Drusus, his son-in-law, whom he loved, died early; and Tiberius, the brother of the latter, whom he hated, on account of his bad qualities, alone survived. These numerous calamities, together with his continually-increasing infirmities, gave him a strong desire of repose. He undertook a journey to Campania, from whose purer air he hoped for relief; but disease fixed upon him, and he died, at Nola (August 19, A. D. 14), in the 76th year of his age,

and 45th of his reign. When he felt his death approaching, he is said to have called for a mirror, arranged his hair, and demanded of the by-standers, "Have I played my part well?" and, an answer being returned in the affirmative, "Then," added he, using the form of the players, "farewell, and applaud" (*valet, et plaudite*). If this last passage in the life of A. is true, it is certainly indicative of his character, his policy, and even of his fortune. It is certain, that his conduct was always measured and determined beforehand, and that he had a great power of remaining cool and unmoved amid the cares and agitations of government. Studiously concealing his own plans, he made use of the passions, as well as the talents, of others, to further them. He conquered Brutus by means of Antony, and Antony by means of Agrippa. He several times changed his party, but never his purposes, and knew how to cause power to be offered, and pressed upon him, while it was, in fact, the object of all his exertions. It cannot be denied that he used his power with wisdom, and became the benefactor of his country, which he had previously plunged into the horrors of civil war. His taste and active mind led him to favor and protect the learned; and he even exercised the art of the poet himself; so that he was not unworthy of giving his name to an age distinguished for intellectual creations. His death plunged the empire into the greatest grief. He was numbered among the gods, and temples and altars were erected to him.

AUGUSTUS II, Frederic, elector of Saxony and king of Poland, second son of John George III, elector of Saxony, born at Dresden, in 1670, was remarkable for his bodily strength and activity. To his residence in France he owed that taste for luxury and the fine arts, which afterwards made the Saxon court inferior in splendor to none in Europe, except that of Louis XIV. In 1691, he visited Vienna, where he contracted a friendship with the archduke Joseph, afterwards Joseph I. By the death of his elder brother, John George IV, in 1694, he became elector. The Polish throne having become vacant, in 1696, by the death of John Sobiesky, A. presented himself as a candidate for it. The abbé de Polignac, the French ambassador at Warsaw, supported the pretensions of the prince of Conti, whom the Polish nobility preferred; but A. had an army on the frontiers, obtained votes by bribery, and publicly embraced the Catholic religion. June 27th, 1697, the election took place. A. strengthened his party by

marching 10,000 Saxons into Poland. Bribery and intimidation obtained him the victory. After he had ascended the throne, a treaty was concluded between Denmark, Poland and the czar Peter I, against Charles XII of Sweden, in which the object was the conquest of Livonia. (See *Oliva*.) But Charles, having defeated the Danes under the walls of Copenhagen, and the Russians at Narva, was now ready to advance into Poland, and A. was obliged to provide for the defence of his own dominions. Thus commenced the celebrated northern war, which lasted twenty years, in which A., with his faithful Saxons, had to withstand the opposition of the Poles, as well as the valor of the Swedes. Charles declared him a usurper, and thus separated the cause of the republic from that of the king, who obtained but little assistance from the Poles. The Swedes advanced to Clissow, between Warsaw and Cracow. A. had 24,000 men, Charles only half the number; but the Poles gave way in the beginning of the engagement, and Charles gained a complete victory, July 20, 1702. May 1, 1703, the Saxon army was defeated again at Pultusk. The diet assembled at Warsaw declared A., Feb. 14, 1704, incapable of wearing the crown of Poland, and Stanislaus Leszczyński, waywode of Posen, was chosen king, July 12, 1704. Charles, victorious on every side, advanced into Saxony, and A. found himself obliged to conclude a secret peace, at Altranstädt (q. v.), Sept. 24, 1706. Meanwhile the Russians, ignorant of these transactions, obliged A. to attack the Swedish general Mardefeld. He gained a signal victory at Kalisch, and entered Warsaw in triumph, at the time that the proposals of Charles were brought to him. However much he might desire to take advantage of his good fortune, it was too late. Saxony lay at the mercy of the Swedes. He signed the treaty, and, December 18, 1706, visited Charles in his camp at Altranstädt. To complete his mortification, Charles compelled him to send to Stanislaus the jewels and archives of the crown, with a letter of congratulation. He returned to Dresden, where he soon after received an unexpected visit from Charles. Count Flemming, his first minister, advised him to make himself master of the person of his dreaded enemy; but he rejected the unjust proposal. He now devoted himself to the domestic affairs of Saxony. His love of splendor had involved him in many expenses, by which the finances of his

kingdom were disordered. In 1708, he served, under an assumed name, in a campaign against the French, in the Netherlands. In 1709, after the defeat of Charles at Pultawa, the Poles recalled A., who united himself anew with Peter. These two monarchs, in alliance with Denmark, sent troops into Pomerania. Notwithstanding the exhausted state of Sweden, the Swedish general Steinbock gained a splendid victory over the allies at Gadebusch, Dec. 20, 1712, which compelled them to raise the siege of Wismar and Stralsund. Charles XII, having afterwards returned from his residence in Turkey, and made known his determination to prosecute the war with vigor, an alliance, at the head of which was A., was formed against him; but his death put an end to the war, and A. concluded a peace with Sweden. A confederation was now formed in Poland against the Saxon troops, at the head of which was a nobleman, named *Ledekuski*. The Saxons were attacked on all sides, and were obliged to surrender. At length, through the mediation of Peter, an arrangement was concluded at Warsaw, 1716, between A. and the republic. The Saxon troops were removed from the kingdom, and A., says a celebrated historian, renouncing the idea of subduing it by force, sought to attain his end by other means. He gave himself wholly up to voluptuousness and a life of pleasure. His court was one of the most splendid and polished in Europe. The Poles yielded but too readily to the example of their king, and the last years of his reign were characterized by boundless luxury and corruption of manners. We read with astonishment, even at this day, the descriptions of the entertainments given by him. It is related that he gave a regiment of dragoons to king Frederic William of Prussia for 12 porcelain vases. He was not disliked by his subjects, and filled with dignity his station among the European powers. In his character generous ideas were united with despotic feelings, a taste for pleasure with the cares of ambition, and the restlessness of a warlike spirit with the effeminacy of a luxurious life. Death surprised him in the midst of his pleasures and projects. On his journey to Warsaw to attend the diet, a small wound in his knee becoming inflamed, he died, Feb. 1, 1733, and was buried in Cracow. His wife, Christine Eberhardine, left him one son. By his mistresses he had many children. The countess of Königsmark bore him the celebrated Maurice of Saxony. (See *Cosel*, *countess of*.)

AUGUSTUS III, Frederic, elector of Saxony and king of Poland, son of Augustus II, born at Dresden, 1696, succeeded his father as elector, in 1733. Towards the end of this year, Louis XV endeavored to replace Stanislaus Leszczinsky, whose daughter he had married, on the throne of Poland; but France was too far distant to send troops enough to Poland to support him. A part of the Polish nobility separated from the diet, and, supported by a Russian army, chose A. king; and, in 1736, he was first generally recognised as such by the congress assembled at Warsaw to conclude a peace. Although without the great and amiable qualities of his father, in other respects he closely followed his example, distinguishing himself by the splendor of his feasts and the extravagance of his court. He squandered immense sums on pictures and musicians. Hunting was his passion. The cares of government he gave up to his favorite and prime minister, count Brühl (q. v.), who was artful enough to persuade a monarch, weak, but proud and jealous of his dignity, that he alone exercised the supreme power. His system of politics consisted in entire dependence upon Russia. He preferred Dresden to Warsaw, and, through his long absence from Poland, the government sunk into entire inactivity. Never were the annual diets more turbulent, and never were they so inefficient from the unbending obstinacy of the members, who continually opposed each other, under the most trivial pretexts. A. was satisfied if he could remain in his beloved Saxony, and thus the great kingdom of Poland was almost entirely without a government for 30 years. In the midst of this confusion, the Poles appeared to be satisfied and happy; but, when Frederic II had conquered Silesia, A., disturbed by the rapidly-increasing power of Prussia, united himself with the queen of Hungary, by the treaties of Dec. 1742, May 13, 1744, and by that of Leipsic, May 18, 1745. He pledged himself, by means of the money which England and Holland were to pay him, to furnish her with 30,000 auxiliary troops, which he sent into Silesia, where they were united with the Austrian army, but were entirely defeated at Hohenfriedberg, June 4, 1745. Frederic now attacked Saxony itself, and prince Leopold of Dessau defeated the Saxon army once more, Dec. 15, 1745, at Kesselsdorf, under the walls of Dresden. A. deserted his capital, and preserved his pictures and porcelain, but lost the ar-

chives of the state, which fell into the hands of the victors. By the peace of Dresden, Dec. 25, 1745, he was reinstated in the possession of Saxony, in the next year. In 1756, he saw himself involved anew in a war against Prussia. When Frederic declined his proposal of neutrality, he left Dresden, Sept. 10, and entered the camp at Pirna, where 17,000 Saxon troops were assembled. Frederic surrounded the Saxons, who were obliged to surrender, October 14. A. fled to Königsstein, and afterwards to Poland. His authority in this country had always been inconsiderable, and, after the loss of Saxony, became still more insignificant. The ascension of Catharine to the Russian throne was a new source of disquietude to him, for the great empress sought, in every way, to deprive the Saxon princes, who were allies of France, of the Polish throne. The peace of Hubertsburg, therefore, was hardly concluded, when A. returned from Warsaw to Dresden, where he was seized, Oct. 5, 1763, with a fit of the gout, which attacked his stomach, and put an end to his life. He had, like his father, before his ascension to the Polish throne (1712), embraced the Catholic religion at Bologna. His son Frederic Christian succeeded him as elector of Saxony, and Stanislaus Poniatowsky as king of Poland.

AULIC (from the Latin *aula*, used for *court*); an epithet given to a council in the ci-devant German empire, the *Reichshofrath*. The aulic council was one of the two supreme courts of the German empire, which first received a distinct form, after the estates had obliged the emperor, in 1495, to establish the court of the imperial chamber (*das Reichs-Kammergericht*). After the erection of this court, the emperor still had, as before, officers who decided all disputes brought to him from his hereditary dominions, and from the empire at large. He, of course, would not allow the estates the same influence, in the appointment of these officers, which they exercised in the appointment of the members of the other court above-mentioned. But, as his officers composing the aulic council took cognizance of judicial processes, the estates frequently complained of it, after 1502. They were not able, however, to attain any thing, except more precision in its organization, in 1559 and 1654. In the peace of Westphalia, it was acknowledged as a supreme court of the empire, equal to the court of the imperial chamber. It consisted of a president, a vice-president, and 18 counsellors, a part of whom, at least, were to

be taken, not from Austria, but the other states of the empire. Six were to be Protestants: all were appointed and paid by the emperor. If the Protestant counsellors were unanimous, the votes of the rest could not prevail against them. The counsellors were divided into a bench of counts and lords, and a bench of learned men (*Gelehrte*), with no distinction, except that the latter, who generally were raised to the rank of nobles, had a higher salary. The vice-chancellor of the empire, also, appointed, by the archbishop, elector of Mayence, had a seat in the aulic council, and a vote after the president. This court had not only concurrent jurisdiction with the court of the imperial chamber, but, in many cases, exclusive jurisdiction; in all feudal processes, and in criminal affairs, over the immediate feudatories of the emperor, and in affairs which concerned the imperial government. The right of appeal, possessed by the estates, existed also in regard to the judicial decisions of the aulic court. With the death of an emperor this court ceased, and the next emperor established a new one. In the mean time, the regents of the empire constituted vice-aulic councils, which ceased again with the beginning of the new imperial government. The archives of this court, which were separated from those of the Austrian house as late as 1740, are in Vienna. Justice was, perhaps, never more slowly administered than by the two imperial courts. An epigram of the mathematician Kästner ascribes divine power to these bodies, because they gave immortality to legal processes; and a German expression, still in use, to *shove any thing on the long bench*, meaning, to delay something indefinitely, is said to be derived from the protracted processes of these courts. But the *rota* at Rome, and some other courts, have, perhaps, equally good claims to this divine power.

AULIS, in ancient geography; a seaport in Bœotia, on the strait called *Eurippus*, between Bœotia and Eubœa. Agamemnon (q. v.) assembled here the Greek fleet intended to sail against Troy. (See, also, *Iphigenia*.)

AUNOY (Marie Catherine Jumelle de Berneville), countess of, born 1650, and died 1705, was the author of *Contes des Fées* (Fairy Tales), which, in their day, met with great success in France. Her style was easy and agreeable, but verbose. Her tales are often founded on fact. The critic cannot pardon the insipid gallantry of many of her heroes. But that was the fashion of the time. She was fond of de-

veloping her plots philosophically. Her husband was accused of treason by three of his tenants, was imprisoned, and subjected to a severe examination, and in danger of being condemned to death, when a mortal disease seized upon one of his accusers, who, to obtain absolution, confessed the falsehood of the whole accusation.

AURELIAN, an emperor of Rome, distinguished for his military abilities and stern severity of character, was the son of a peasant of Illyricum. He gradually rose, under Valerian II, to the highest honors in his profession, and even to the consulate; which good fortune was further favored by a wealthy marriage. Claudius II, on his death-bed, recommended A. to the choice of the troops of Illyricum, who readily acceded to his wishes. He delivered Italy from the barbarians, reduced Tetricus, who had been unwillingly made to assume the purple in Gaul, and conquered the famous Zenobia, queen of Palmyra. Owing to the ungenerous excuse of the queen, that she had waged war by the advice of her ministers, her secretary, the celebrated Longinus, was put to death by the victor; but, after having graced his triumphal entry, Zenobia herself was presented with a villa on the Tiber, and allowed to spend the remainder of her days as a Roman matron. A. followed up his victories by the reformation of abuses, and the restoration throughout the empire of order and regularity, but tarnished his good intentions by the general severity of his measures, and the sacrifice of the senatorial order to his slightest suspicions. He had planned a great expedition against Persia, and was waiting in Thrace for an opportunity to cross the straits, when he lost his life, A. D. 125, by assassination, the result of a conspiracy excited by a secretary whom he intended to call to account for peculation. A. was a wise, able and active prince, and very useful in the declining state of the empire; but the austerity of his character caused him to be very little regretted. It is said that he meditated a severe persecution of the Christians, when he was so suddenly cut off, after a distinguished and eventful reign of only five years.

AURENG-ZEBE (*ornament of the throne*), born Oct. 20, 1619, received this title from his grandfather, Jehan-Guyr, who at that time was sovereign of Hindostan. When he was nine years' old, his weak and unfortunate father, Shah Jehan, succeeded to the throne. Aureng-Zebe was distinguished, when a youth, for his serious

look, his frequent prayers, his love of solitude, his profound hypocrisy, and his deep plans. He caused himself to be received among the fakirs, wore their habit, and wished to visit the tomb of the great prophet at Medina. But in his 20th year, he laid aside the Koran, which he had hitherto carried in his bosom, raised a body of troops by his address and good fortune, and obtained the government of the Deccan. Here, wishing to give the fakirs a proof of his love and friendship, he invited them to a feast, and compelled them, notwithstanding their resistance, to put on new and decent clothing. He burnt the old clothes, and found therein a quantity of gold and silver pieces, which did him good service when he came to carry on war with his brother. He stirred up dissensions between his brothers, made use of the assistance of one against the other, and finally shut his father up in his harem, where he kept him prisoner. He then murdered his relatives, one after the other, and, in 1659, ascended the throne of Hindostan, and took the name of *Aalem Gyr*. Notwithstanding the means by which he had got possession of power, he governed with much wisdom, consulted the welfare of his people, watched over the preservation of justice, and the purity of manners, and sought to confirm his own power. Two of his sons, who endeavored to form a party in their own favor, he caused to be arrested and put to death by slow poison. He carried on many wars, conquered Golconda and Visiapour, and drove out, by degrees, the Mahrattas from their country. Aurungabad, once his residence, now desolate, Seely has described in his *Wonders of Elora* (London, 1824). After his death, the Mogul empire declined, wars immediately broke out between his sons, and several conquered provinces sought to make themselves independent.

AUREUS, or AUREUS NUMMUS; the first gold coin which was coined in Rome, 546 A. U., in the second Punic war. It weighed two *denarii* and one *quinarius*, and was worth 25 *denarii*, or 100 *sesterces* (Suet. Oth. 4; Tacit. Hist. i. 24). In later times, it was called *solidus*, but had diminished in value. At first, 40 *aurei* were made out of a pound; under Nero, 45; under Constantine, 72. It was about as much as a ducat.

AURICULAR CONFESSION. (See *Confession*.)

AURIGA, in astronomy; the *Wagoner* (*ἡμιόλος*); a constellation of the northern hemisphere, containing 66 stars, according to the British catalogue.

AURORA (Greek, ἠὺς); daughter of Hyperion and Thia, and sister of Sol and Luna. She was one of the ancient goddesses of the race of the Titans, but retained her rank among the later race of gods. To the Titan Astræus, son of Crius, she bore the Winds, Zephyrus, Boreas, and Notus, the Morning-star, and the Constellations. She rises from the ocean, drawn by the celestial horses Lampus and Phaëton, and, with rosy fingers, raises the veil of night, shedding light upon the world, until she flies from the splendor of day. Among the mortals whose beauty captivated the goddess, poets mention Orion, Tithonus and Cephalus.

AURORA AUSTRALIS. (See *Aurora Borealis*.)

AURORA BOREALIS (French, *aurora boréale*; German, *Nordlicht*); northern light. We often see in the north, near the horizon, usually a short time after sunset, a dark segment of a circle, surrounded by a brilliant arch of white or fiery light; and this arch is often separated into several concentric arches, leaving the dark segment visible between them. From these arches, and from the dark segment itself, in high latitudes, columns of light, of the most variegated and beautiful colors, shoot up towards the zenith, and, sometimes, masses like sheaves of light are scattered in all directions. The appearance is then splendid; and its increasing beauty is announced by a general undulation of the masses of light. A kind of fiery coronet is afterwards formed about the zenith, by the meeting of all the columns of light, resembling the knob of a tent. At this moment, the spectacle is magnificent, both for the multiplicity and beauty of the columns which the aurora presents. (Compare Maupertuis *De la Figure de la Terre*, Paris, 1738.) The light, after this, grows fainter and more tranquil. This faintness and tranquillity, however, are only temporary, for the phenomena are soon repeated in all their beauty—the oscillation of the columns of light, the formation of the corona, and the like, though with a thousand variations. At length, the motion wholly ceases, the light is collected about the northern horizon, the dark segment vanishes, and nothing is left but a strong brightness in the north, which is lost in the dawning day. These brilliant appearances are also attended, in high latitudes, with loud noises, described as resembling the hissing and crackling of fire-works. This appearance has received the name of *northern light*, because, on account of our position on the

earth, we see it only about the north pole. A similar appearance, *aurora australis*, was seen about the south pole, in 1773, by Cook's sailors, between 58° and 60° S. lat., and later travellers have observed the same. These phenomena ought, therefore, properly to be called *polar lights*.—Philosophers are of different opinions as to the cause of the aurora. It is, however, satisfactorily ascertained to be within the region of our atmosphere. Hell ascribed it to the reflection of the sun and moon by the clouds of snow and needles of ice, which are constantly floating in the atmosphere of the frigid zones. Mai-ran supposed it to proceed from the atmosphere of the sun. Bailly ascribed it to magnetism, and its remarkable influence on the needle has been generally observed. Franklin attributed it to electricity. Biot, who was sent to the Shetland islands, in 1817, by the French academy of sciences, to determine the length of the pendulum vibrating seconds, had an opportunity, Aug. 27 of the same year, of observing the aurora borealis, in all its splendor, at the island of Unst. On this occasion, he ascribed to the phenomenon a volcanic origin, and his reasoning is given at length in the *Journal des Savans* for 1820. His description of this wonderful phenomenon is to be found in Biot's *Précis Élémentaire de Physique*, 3d ed., Paris, 1824, vol. ii. p. 99, et seq. An ingenious hint of Kästner, advanced in the sixth edition of Gren's *Physik* (Physics), Halle, 1820, is deserving of attention. He considers polar lights as the electricity of the earth rising periodically to the poles. The latest observations on this appearance were communicated by Richardson and Hood, in the appendix to Franklin's Narrative of a Journey to the Shores of the Polar Sea, in 1819, &c. London, 1823, 1824.

AUSONIUS, Decius Magnus, the most celebrated Roman poet of the 4th century, was born at Burdigala (Bordeaux), about the year 310. He studied under several distinguished masters, and became, at last, professor of rhetoric in his native city, whence his fame extended through the whole empire. Valentinian intrusted to him the education of his son Gratian, and appointed him afterwards questor and pretorian prefect. After Gratian had ascended the throne, he showed himself not less grateful to his preceptor. About the year 370, he appointed him consul in Gaul. After the death of Gratian, A. lived upon an estate at Bordeaux, devoted to literary pursuits, and died about 394.—As

Valentinian was of the Christian religion, it is probable that A. was also; and many of his writings confirm this conjecture. Critics are not unanimous on the subject of his poetical merits. He is, undeniably, learned and ingenious, but his style and versification have the blemishes of the age, and his Latin is impure. His epigrams, idylls, eclogues, letters in verse, &c., are extant. The most valuable editions are, Bordeaux, 1575–80, 2 vols., 4to., by Souchay; Paris, 1730–34, Jaubert; Paris, 1760–70, 4 vols., 12mo.

AUSPICES. (See *Augur*.)

AUSTERLITZ, a town with 2000 inhabitants, in the dominions of the prince of Kaunitz-Rittberg, in the circle of Brünn, in Moravia, 10 miles east of Brünn, on the highway which leads by Göding to Hungary, is famous for the battle of the 2d of December, 1805, and the armistice of the 6th of the same month. These events were turning points in the destiny of Europe and the elevation of Napoleon. Their immediate consequence was the peace of Presburg; but the most important result was the subjection of Germany and the humiliation of Prussia; for the victory at A. not only frustrated Pitt's great plan of reducing the power of France, by the allied arms of Britain, Russia and Austria, to the bounds, which, 10 years after, the peace at Paris assigned to it, but also established, with the assistance of French diplomacy, Napoleon's continental and federative system. Napoleon, after the capitulation of Mack, in Ulm, Oct. 19, unchecked at Lambach and Mariaszell by the Austrians under Meerveldt, and at Dürnstein, Nov. 11 (where Mortier suffered loss), by the Russians under Koutousoff, occupied Vienna, 13th Nov., and immediately took possession of the bridge over the Danube, leading to Moravia, while prince Auersberg, who should have burnt it, allowed himself to be deluded by a pretended negotiation for peace. Marshal Lannes, therefore, on the 15th, came up with the Russian army under Koutousoff, who, to preserve himself, resolved to sacrifice the rear-guard of 6000 men, whom prince Bagration commanded. This intrepid general, however, notwithstanding he was attacked by 30,000 French at Hollabrunn, on the 16th, and at Guntersdorf, on the 17th, forced his way, with the remains of his troops, to the main army, on the 19th. Here the emperor Alexander had arrived, on the 18th, from Berlin, and on the same day the second Russian army, under Buxhöwden, had united with that

of Koutousoff. November 24, the Russian guards, 10,000 strong, also arrived, and it was resolved, at the head-quarters of the two emperors, Alexander and Francis, at Olmütz (the troops being then in want of provisions), to march, Nov. 27, from the advantageous station of Olschan (8 miles from A.), in five parallel columns, against Brünn, where Napoleon had already taken up his head-quarters on the 20th, and offer him battle. But the Russians lost many days by repeated changes in their plans of attack, and Napoleon deceived them by negotiations (in which prince Dolgorucki made very high demands), also by retiring, as if he wished to avoid an attack, and, to conceal his force, contracted his troops into a narrow space. He thereby gained time, till the arrival of the corps under Bernadotte, and two divisions of Davoust's, Dec. 1st, when he prepared his army, which rested on Brünn, for battle, and assured his troops of the victory of the following day, being the anniversary of his coronation. The French army, in a position unknown to Koutousoff, was about 80,000 strong. The army of the allies numbered about 84,000 foot and 16,000 horse, among which were 20,000 Austrian troops. On the morning of the 2d, about 7 o'clock, the battle began, according to a plan prepared by the Austrian general Weyrotter. Buxhowden, who commanded the left wing of the Russian army, was stationed beside the 1st column, led by lieutenant-general Docktoroff, which, together with the 2d, under general Langeron, and the 3d, under general Przybyszewsky, was to surround the right wing of the French under Soult. The village of Delnitz was taken after an obstinate engagement; but, deluded by the enemy's retreat, Buxhowden pressed forward, with the 1st column, too far to the left, and fell into a narrow defile, which two divisions of Davoust had occupied in the night. About the same time, the 2d and 3d columns, in order to attack the right wing also in front, had left the heights of Pratz, which overlooked the field of battle. These were immediately occupied by Soult, and maintained, after a fight of two hours, by the aid of a part of the centre, under Bernadotte, against the efforts of Koutousoff. This decided the victory; for the Russian left wing, which was before engaged with Davoust, and, after Soult's change of position, with the French reserve also, was cut off from the centre, and attacked both in flank and rear. Thus the 2d and 3d columns fell into

disorder. Lannes immediately pressed forward with the left wing, and the French centre, under Bernadotte, supported by a well-directed fire, broke the centre of the allies (where the Austrians, mostly newly-enlisted troops, stood under the command of Koutousoff), and pushed it upon the right wing of the Russians under Bagration and prince Liechtenstein, so that the Russian reserve came too soon into the engagement. Still it made, for a long time, a gallant resistance under the grand prince Constantine and the prince Dolgorucki. After this body was thrown into disorder by the French left wing under Lannes, and the last attack of the Russian guards frustrated by the French guards and the cavalry, which Murat commanded, the allied army retreated, under cover of Bagration and Kienmayr, about 1 o'clock, in good order, to A., and, at 4 o'clock, passed over the March. The issue of this battle was singular. The French troops of the right wing, with their rear resting on A., attacked the remainder of the left wing of the allies, and, in the end, marched down from the same heights, from which, in the morning, the allies had descended to attack them. Consequently, the Russian left wing suffered the most, as it had to force its way over the frozen ponds at Kobelnitz and Satschau, and over a narrow dike. According to the French account, several thousand of the allied troops were drowned in these ponds, when Napoleon ordered the ice to be broken with shot. At this crisis, lieutenant-general Przybyszewsky, with 113 officers and 6000 men, was forced to lay down his arms. According to Koutousoff's report, the Russians lost 12,000 men. The French made their own loss about 4500 men, but the number of prisoners taken on the 2d and 3d, about 20,000 men, and that of the cannons taken, which, for the most part, were stuck fast in the morasses, rather more than 150. The Austrians lost 5922 in killed, wounded and prisoners.—The battle, it is said, would have been won by the Russians, if they had fought either before the 1st of December, and consequently before Bernadotte and Davoust had reinforced the French army, or after the 15th; for an army of 80,000 men was approaching, from the Hungarian frontier, towards Vienna and the Danube, led by the archdukes Charles and John, who had joined their forces near Windisch-Feistritz, in Styria, Nov. 27, while Massena remained at his post on the Isonzo. Troops were

also levied in Hungary, and, in addition to this, a body of Russians, 12,000 strong, under the command of general Bennigsen, had invaded Upper Silesia, Dec. 3, and prepared the people of Bohemia to rise in a body; and, in consequence of the treaty of Potsdam, Nov. 3, by which the king of Prussia joined the Russian alliance, an army of 180,000 men—Prussians, Saxons and Hessians—stood ready, in case Napoleon should refuse, on the 15th of December, the mediation of Prussia, according to the treaty of Luneville, to invade France, and to break through Napoleon's line upon the Danube; while an army of 80,000 men—Prussians, Russians (under Tolstoi), Swedes, Hanoverians and English—in Upper Germany, threatened the frontiers of the Netherlands. In Italy, too, the landing of the English and Russians might effect an important diversion. In spite of all these resources, Austria asked for peace. December 3, prince John von Liechtenstein appeared at Napoleon's head-quarters, and, on the 4th, the emperor Francis himself had a two hours' interview with him at the French outposts, not far from the village of Nasedlowicz, near a mill at Saroschütz, where the two monarchs made a truce, and laid the foundation of a peace. Napoleon's adjutant, general Savary, accompanied the German emperor back to his head-quarters, to learn whether Alexander would accede to the treaty. The Russian accounts say that the emperor would not allow him to come into his presence; but the French bulletins give a circumstantial account of his audience, which is also mentioned by the Austrian general von Stutterheim, the author of *Matériaux pour servir à l'Hist. de la Bataille d'Austerlitz* (1806, with notes by a French officer, said to have been dictated by Napoleon). Prince Berthier and prince von Liechtenstein concluded, on the 6th, a truce, according to the terms of which the French army was to hold the Austrian circle, Venice, a part of Bohemia and Moravia, and Presburg; the Russian army was to evacuate the territories of the emperor of Austria; no levy was to be made in Bohemia or Hungary, and no foreign army was to enter the states of the house of Austria. On the 7th, Napoleon imposed upon the countries held by his troops a tax of a hundred millions of francs. Alexander, according to the wishes of the emperor of Austria, drew off his army, though he would not accede to the treaty, but placed his troops in Silesia and Lower Saxony,

at the disposal of the king of Prussia. March 4, 1806, his troops in Dalmatia took possession of Cattaro (q. v.), which had been given up by Austria to France. The truce of A. paralyzed the strength of the Austrian monarchy, and broke its former alliances, so that the Prussian minister, count von Haugwitz (who had come to Vienna, in November, that he might act as mediator on the 15th Dec., but had been anticipated by Napoleon), finding, in the altered state of affairs, that he must either declare open war against the French emperor, or make an alliance with him, concluded, Dec. 15, in opposition to his instructions, the treaty by which Prussia exchanged the alliance of Russia for that of France. (See Lucchesini *On the Confederation of the Rhine*, i. 348, and Schöll's *Traité de Paix*, viii. 27.) Austria afterwards subscribed, Dec. 26, the hard conditions of the peace of Presburg (q. v.), by which she not only gave up a territory of 24,200 square miles, with 2,785,000 inhabitants, and a revenue of 13,610,000 florins, but lost her alliance with Switzerland and Italy, and her influence in the German empire. Thus Napoleon's superiority was established in Italy, the dependence of the princes of Lower Germany upon France confirmed, and Prussia drawn from its system of neutrality.

AUSTIN, St. (See *Augustin*.)

AUSTRAL OCEAN. (See *South Sea* and *Krusenstern*.)

AUSTRALIA. (The English geographers make two divisions of the islands mentioned in this article: 1. Australasia or Australia; those lying around New Holland, from lon. 96° to 185° E., and lat. 3° N. to 50° S. 2. Polynesia, lying N. of Australasia, and E. of the Philippines, from lon. 170° to 230° E., and lat. 35° N. to 50° S. We have retained the term *Australia*, in the more comprehensive sense in which it is used in Germany, it being a word of indefinite signification.) This is the fifth division of the globe, at first called *Southern India*, and, on account of the multitude of islands of which it consists, *Polynesia*, or the *Island world*. It has its name from its southern position with regard to the old world. This portion of the globe began to be discovered after America and the South seas were known to the Europeans. Magellan, who first undertook a voyage round the world, had promised the Spanish monarch, into whose service he entered when he left the Portuguese, that he would arrive at the Moluccas by sailing westward. On this voyage, he discovered, March 6, 1521, the Ladrões,

or Mariana islands, a group which constitutes a part of A. Magellan must, therefore, be regarded as the first discoverer of this portion of the globe, and opened the way for the subsequent discoveries in this quarter. 300 years elapsed before all the islands, which now pass under the name of A., were known to Europeans. After Magellan, the Spanish navigators continued the process of discovery in this part of the world, particularly Alvaro de Mendana, who, in the last part of the 16th century, discovered the Solomon islands and the Marquesas, and passed through the Society and Friendly islands without seeing them. Fernandez de Quiros, who had accompanied him on his third voyage, took a southerly direction, and hit upon the part of the South sea which contains the most islands. He made known to the world the Society islands and Terra del Espiritu Santo. In the 17th century, the Dutch began to explore this part of the ocean, and, besides several small islands, discovered the largest island of A., New Holland, which received its name from them, although there is some reason for supposing that it had been visited by the Portuguese a hundred years earlier; but their discoveries seem to have been concealed by their government, and afterwards forgotten. The coasts of New Holland, e. g. Edel's Land, Nuyt's Land, De Witt's Land, retain the names of the Dutch discoverers. Tasman, a Dutchman, and Dampier, an Englishman, continued the discoveries. In the middle of the 18th century, the Englishmen Byron, Wallis and Carteret, and the Frenchman Bougainville exerted themselves to extend the knowledge of A. But James Cook (q. v.), who circumnavigated the world from 1768 to 1779, contributed most to the more accurate examination of this portion of the globe, corrected the knowledge of Europeans with regard to the islands already known, again discovered islands before seen, and was the original discoverer of New Caledonia and the Sandwich islands. After the time of Cook, both the French and English exerted themselves to give the world a better acquaintance with A. Among the later navigators, Entrecasteaux, Grant, La Peyrouse, Baudin, Flinders, Krusenstern and Kotzebue have added to our knowledge of A. There are, doubtless, many islands still in these seas, which no European has seen, and of those known, only the coasts have yet been explored. The South sea and the Pacific ocean, between the eastern shore of Asia and the western shore of Amer-

ica, contains all the islands of A. which occupy a space of 130° in length, and 85° in breadth, as they extend from 50° S. to 35° N. lat., and from 95° to 230° E. lon. The superficial contents are estimated at about 3,500,000 square miles; of which New Holland alone is almost equal in size to Europe.—We may regard all these islands as continuous chains of mountains, which rise from the sea, and, running in a direction from N. to S. E., in a double row, like hills and promontories, surround New Holland. The line nearest the main land of New Holland begins with New Guinea, and ends with New Zealand; the second line begins at the Ladrões, and passes on to Navigator's islands and the Friendly islands, whence it takes a direction from the west towards the east. From these almost continuous rows of islands the Sandwich islands are wholly separated.—The soil of A. is fruitful, especially in the islands of the torrid zone. Plants transported hither from Europe flourish. Some of the islands are low and flat; others have steep, rocky shores, and are filled with mountains, some composed of primitive rocks, others of flötz and basalt. The highest known are the Mauna Roa, in the Sandwich islands, and Peak Egmont, in New Zealand, the height of which amounts to 14,000 feet. Several of these islands are of volcanic origin: others are raised from the bottom of the sea by successive layers of coral, or carried to their present height by accumulations of the same substance on the original rocks at the bottom of the deep. The coral formations extend to a distance from their coasts, and constitute reefs, so that it is dangerous to approach them. The mountains of A. have not yet been explored, and their structure investigated. The shores of New Holland, New Guinea and New Zealand, and the mountains in their vicinity, have been examined by naturalists but slightly. The residence of Europeans in the other islands, also, has been too short to allow them to make accurate observations. In later times, the English have made an attempt to pass from the eastern coast of New Holland, where their colonies are situated, to the interior. The mountains extending from north to south, on the west of these colonies, called the *Blue hills*, consist of steep crags, fearful precipices, and ranges of heights of successively increasing elevation, which made all early attempts to become acquainted with the interior of no avail. At length, Nov. 3, 1813, Mr. Evans, an Englishman, succeeded in as-

tending them, and, in 1815, a road was completed over them. On the whole, naturalists have only penetrated into the interior about 140 miles from the eastern shore, though the distance to the western shore is more than 2700 miles. There is a remarkable want of large streams in this portion of the world, though the islands in general are not deficient in water. The rivers of New Holland are small arms of the sea, which extend far into the interior, retain the saltness of the ocean, experience the ebb and flow of the tide, and receive some insignificant streams on the coast. The largest river of New Holland is the Hawkesbury, in Broken Bay, which is navigable for the largest ships 46 miles up the country, and is 150 rods wide. Beyond the Blue hills, the river Macquarie has been discovered, which is lost, with other rivers, in the morasses. New Holland probably contains, according to the account of Oxley, a large lake in the interior, similar to the Caspian, into which the rivers flow. The climate of A., as it lies partly in the southern temperate zone, and partly in the torrid, is in some parts warm, though the heat is generally less oppressive than in the same latitudes in Asia and Africa. In other parts, it is temperate, mild and healthy. Those countries of A. which lie in the southern hemisphere are colder than those in the northern. The productions are, in part, the same with those of other countries of the same latitude; in part, peculiar to itself: for instance, birds without wings, having hair instead of feathers; quadrupeds with the beaks of birds, white eagles, &c. The mammalia and beasts of prey are few. The principal mammalia are the kangaroo, weighing from 100 to 150 pounds; the wombat (both of which have a pouch under the belly, a characteristic belonging to many of the quadrupeds of New Holland); the ornithorynchus, perhaps the most singular animal in the world, to which nature has given the body of a quadruped, and the head, or, at least, the beak of a bird; the dasyure, the dingo, or New Holland dog, the New Holland flying-squirrel, several species of opossum, the kangaroo rat, hogs, dogs, rats, bats, whales, sea-bears, sea-lions and sea-elephants. Horses, oxen, sheep and goats were introduced there by Europeans. Among the birds which are distinguished for the splendor of their colors and variety of their plumage, are several kinds of parrots and birds of paradise; the New Holland cassiowary, which weighs 70 pounds, and surpasses the East

Indian birds in size and in the beauty of its plumage; the splendid *menura*, remarkable for the elegance of its tail; and the black swan. There are also hens, doves and ducks. The coasts are well stocked with fish, of which there are several kinds peculiar to them. The varieties of insects and shell-fish are very great. The richness of the vegetable kingdom is still greater: in New Holland alone, 1000 new plants have been discovered. The smaller islands are still richer than New Holland in esculent plants. Among these are the sago, areca, cocoa and eucalyptus trees, which attain a height of 180 feet, and a circumference of 30 feet; the cajaputi, gum-tree, bread-fruit, guavas, bananas, rotang; casuarina, or club-trees, of which the natives make the most durable weapons and furniture; paper-mulberry-trees, from the finest bark of which cloth is manufactured; lemons, oranges, figs, sugar-cane, betel-pepper, and another kind of pepper, of which an intoxicating drink, called *ava*, is made; cotton-trees; New Zealand flax, which forms an excellent cord; yams, arum. These form the principal articles of agriculture in the Sandwich islands. The Europeans have introduced European plants, grains, and garden-fruits, almonds, pomegranates, tobacco, hemp, flax, hops, &c. In the mineral kingdom, though little examination has been given to it, there have been found copper and iron ore, granite, porphyry, basalt, chalcidony, agate, jade, or oriental kidney-stone, marble, lime, rock-salt, &c. A. is very thinly inhabited. There are, on an average, about two inhabitants to a square mile, as the whole number is estimated at only 1,700,000. They consist, principally, of two distinct classes; one of Negroes, called *Papuas*, and one somewhat different from the Europeans in appearance, and belonging to the Malay race. From the union of the two principal varieties several intermediate ones arise. The *Papuas* inhabit New Holland, New Guinea, Louisiade, the Solomon islands, New Hebrides, New Britain and New Caledonia; and, in New Holland particularly, they have projecting lips and woolly hair, like all other Negroes, from whom they are distinguished by very thin, lean arms and legs. This race, in cultivation, is far below the other race, the Malays, especially in New Holland, where they have very disgusting and ape-like features, stand on the lowest step of bodily and mental improvement, and live in a savage state, without laws and without religion. Their great mouths,

and thick, projecting lips, jut out somewhat like a snout, and their little, flat noses are lost behind them. Their deep-sunk eyes betray a rude and malicious spirit, and sometimes, though rarely, a stupid good humor. They are naked, or slightly clothed in the skins of beasts, live on fish, or the fruits of trees, or on the flesh of the kangaroos, which they find no difficulty in catching, and devour every thing almost raw; they hardly pull the feathers from birds before they consume them. The inhabitants of New Caledonia and the New Hebrides, who are also regarded as Papuas, eat the flesh of their enemies, when they have killed them, though they have fields covered with bananas, yams and arum. The pure Malay race, who inhabit the Australian islands,—i. e. the Friendly, Society and Sandwich islands,—are distinguished for the most beautiful and regular forms of which humanity is capable. Their complexion is sometimes not darker than that of the Spaniards and Italians, and some of the women are as white as the most beautiful Europeans. In general, these islanders seem to be good-natured, sociable, gentle, happy and gay. Travellers, however, agree in this, that they have a strong propensity to steal, and give up their wives and daughters to the Europeans without restraint. Among some of them, the shocking custom of eating human flesh, and offering human sacrifices, still prevails. They live in villages, where there are even some public buildings to be found. They make boats ornamented with carved work, tools, furniture, and weapons of stone and wood, which, considering their means, are very remarkable. They make nets, baskets, cords, very fine mats, and cloth for their dress, which they know how to dye exquisitely. They carry on a sort of agriculture, which consists principally in the cultivation of arum, yams and potatoes, and live in a civil union, of which the foundation is a sort of feudal system. They worship a supreme and inferior gods; they have priests and sacrifices, and entertain hopes of sensual indulgences in another life. Their *morais*, or buildings for the dead, are commonly places where the worship of their gods is performed. English and American missionaries have spread the Christian religion in the Society and Sandwich islands. Among all these islanders, the inhabitants of the Sandwich islands have made the greatest progress, through their acquaintance with the Eu-

ropeans. Besides these original inhabitants of A., there are also some Europeans; a few in the Sandwich islands, upwards of 50,000 in the colony established by the English on the eastern shore of New Holland, and a less number in Van Diemen's Land. In 1824, Great Britain took possession of all the islands and tracts of land in A., lying between 111° E. and 153° W. lon., besides Apsley and Clarence straits, and port Essington, on the peninsula of Coburg. The principal parts of A., besides several smaller islands lying separately, are New Holland, Van Diemen's Land, New Guinea, the Admiralty islands, New Britain, Solomon isles, Queen Charlotte's islands, or the archipelago of Santa Cruz, New Hebrides, or Terra del Santo Espiritu, New Caledonia, New Zealand, the Pelew, Caroline or New Philippine islands, Marian or Ladrone, Monteverdos, Mulgrave, Fisher, Friendly, Bligh's, Navigator's, Society, Marquesas, Washington's and Sandwich islands. (See King's *Survey of the Coasts of Australia*, London, 1827, and Cunningham's *Two Years in New South Wales*, 3d edit., London, 1828); also, *Statistical Account of the British Settlements in Australasia*, &c., 3d ed., London, 1825, 2 vols.)

AUSTRIA (in German, *Österreich*, i. e. East-empire.) This state is a monarchy, with a population composed of Germans, Slavonians, Magyars (by which name the Hungarians call themselves) and Italians. Its cradle was the territory below the Ens. In the time of Charlemagne, about 800, the margraviate of A. was formed by a body of militia, which protected the south-east of Germany from the incursions of the Asiatic tribes. In 1156, it was united with the territory above the Ens, and made a duchy. In 1282, the state began to increase under the dominion of the house of Hapsburg. (q. v.) This dynasty soon added several new territories, which afterwards formed the Austrian circle, and, in 1438, obtained the electoral crown of the German emperors. In 1453, A. was raised to an archduchy, and, having acquired Bohemia and Hungary in 1526, with the consent of the inhabitants, it attained the rank of a European monarchy. The Lorraine branch of the house of Austria maintained this rank at the peace of Aix-la-Chapelle, signed in the year 1748. They confirmed the union of their territories by elevating the monarchy, in 1804, to a hereditary empire, and established its dignity as one of

the chief powers in Europe, before, during and after the congress of Vienna, in 1815.

Ancient History of the Country till the year 982.—After the Romans had vanquished the Noricans, A. D. 33, and gained possession of the Danube, the country north of the Danube, extending to the borders of Bohemia and Moravia, belonged to the kingdom of the Marcomanni and Quadi; a part of Lower Austria and Stiria, with Vienna (Vindobona), a municipal city of the Roman empire, belonged to Upper Pannonia; the rest of the country, with Carinthia and a part of Carniola, formed a portion of Noricum. Görz belonged to the Roman province of Illyricum, and Tyrol to Rhætia. These limits became confused by the irruptions of the barbarians. The Boii, Vandals, Heruli, Rugii, Goths, Huns, Lombards, and Avars, in the course of the 5th and 6th centuries, successively occupied the country. But after the year 568, when the Lombards had established their power in Upper Italy, the river Ens formed the boundary line between the German tribe of Bajuvari, the proprietors of the territory above the Ens, and the Avars, who had removed from the East to the banks of that stream. In 611, the Wendi, a Slavonic tribe, appeared on the Murr, Drave, and Save. In 788, the duchy of Bavaria was dissolved, and the Avars passed over the Ens, and invaded the counties of the Franks in the Bavarian territory. In 791, Charlemagne forced them to retire to the Raab, and united the territory extending from the Ens to the junction of the Raab with the Danube (the territory below the Ens) with Germany, under the name of *Avaria*, or *Eastern Marchia* (*Marchia Orientalis*), or *Austria*; and, in the 10th century (in a document of Otho III, 996), it was called *Ostirrichi*, or *Estreich*, the German name for *Austria*. Many colonists, particularly from Bavaria, were sent by Charlemagne into the new province, and a margrave was appointed to administer the government. The archbishop of Salzburg was at the head of ecclesiastical affairs. After its separation from Verdun, in 843, Avaria formed the eastern boundary of the German empire. On the invasion of Germany by the Hungarians, in 900, Avaria fell into their hands, and was held by them till 955, when the emperor Otho I, in consequence of the victory of Augsburg, reunited a great part of this province to the empire. By the power and ad-

dress of its margraves, the whole country was joined again with Germany, and, in 1043, under the emperor Henry III, and the margrave Albert I (the Victorious), its limits were extended to the Leytha.

Austria under the House of Bamberg, till 1282.—From 982 to 1156, the margraviate of Austria was hereditary in the family of the counts of Babenberg (Bamberg); the succession, however, was not regulated by primogeniture, but by the will of the emperor. In ancient documents, mention is made of the estates of Austria in the year 1096. After Henry the Proud (duke of Bavaria and Saxony) was put under the ban of the empire, Leopold V, margrave of A., received the duchy of Bavaria, in 1138, from the emperor Conrad. But when the margrave Henry, son of Leopold, under the title of *Ja-so-mir-Gott* (Yes-so-me-God), had again ceded it, in 1156, to Henry the Lion, the boundaries of A. were extended so as to include the territory above the Ens, and the whole was created a duchy with certain privileges. Under this duke the court resided at Vienna. Duke Leopold VI, the son of Henry, received the duchy of Stiria, in 1192, as a fief from the emperor Henry VI, it having been added to the empire by Otho I, in 955, by his victory over the Hungarians. It was this prince who imprisoned Richard Cœur de Lion (q. v.), king of England. Duke Leopold VII, the youngest son of the former, erected a palace within the city of Vienna, which is still occupied by the Austrian monarchs, under the name of the *old castle*. Leopold VII, called the *Glorious*, established the hospital of the Holy Cross, made Vienna, which had adopted a municipal constitution in 1198, a staple-town, and granted 30,000 marks of silver for the promotion of trade and commerce. In 1229, he purchased a part of Carniola, from the ecclesiastical principality of Freisingen, for 1650 marks, and left the country in a flourishing condition to the youngest of his three sons, Frederic II, surnamed the *Warrior*. In 1236, this prince was put under the ban of the empire, on account of his joining the alliance of the cities of Lombardy against the emperor Frederic II; and Otho, duke of Bavaria, seized upon his territory above the Ens as far as Lintz. The rest of the country was granted, as a fief, by the emperor, to a margrave, and Vienna became an imperial city. During the emperor's campaign in Italy, duke Frederic recovered the principal part of his lands, and his rights were confirmed

by the emperor, at Verona, 1245. The rights of Vienna, as an imperial city, were abolished, and Frederic was to be called king, as sovereign of Austria and Stiria; but all his expectations of empire were disappointed by his death, in the battle of Leytha against Bela IV, king of Hungary, July 15, 1246, in the 35th year of his age. Thus the male line of the house of Bamberg became extinct.—The period from 1246 to 1282 is styled the *Austrian interregnum*. The emperor Frederic II declared Austria and Stiria a vacant fief, the hereditary property of the German emperors, and sent a governor to Vienna, the privileges of which, as an imperial city, were once more renewed. But the female relations of the deceased duke Frederic, his sister Margaret (widow of the emperor Henry VI), and his niece Gertrude, by the persuasion of pope Innocent IV, in 1248, laid claim to the inheritance of their brother. The margrave Hermann, with the aid of the pope and a strong party, made himself master of Vienna, and of several Austrian cities. In Stiria, he was opposed by the governor, Meinhard, count of Görz. But Hermann died in 1250, and his son Frederic, who was afterwards beheaded, in 1268, at Naples, with Conradin of Suabia, was then only a year old. The whole country was distracted by various parties, and the emperor Conrad IV was prevented, by disputes with his neighbors, from turning his attention to A. In 1251, the states of Austria and Stiria determined to appoint one of the sons of the second sister of Frederic the Warrior, Constantia (widow of the margrave Henry the Illustrious), to the office of duke. Their deputies were on the way to Misnia, when they were persuaded by king Wenzeslaus, on their entrance into Prague, to declare his son Ottocar duke of Austria and Stiria, who made every effort to support his appointment, by arms, money, and especially by his marriage with the empress-widow, Margaret. Ottocar wrested Stiria from Bela, king of Hungary, by his victory of July, 1260, in the Marchfield; and, in 1262, forced the emperor Richard to invest him with both duchies. Soon after, by the will of his uncle Ulrich, the last duke of Carinthia and Friuli (who died 1269), Ottocar became master of Carinthia, a part of Carniola connected with it, the kingdom of Istria, and a part of Friuli. But his arrogance soon caused his fall. In 1272, he refused to acknowledge count Rodolph of Hapsburg emperor, and was obliged to defend himself against

his arms. After an unsuccessful war, he was forced to cede all his Austrian possessions, in Nov. 1276. In 1277, he attempted to recover these territories, but, in the battle of the Marchfield, Aug. 26, 1278, he was slain, and his son Wenzeslaus was obliged to renounce all claim to them, in order to preserve his hereditary estates. The emperor Rodolph remained three years in Vienna, and then appointed his eldest son governor. But, having succeeded in gaining the consent of the electors of Saxony and Brandenburg, of the three ecclesiastical electors, and of the count-palatine of the Rhine, he granted the duchies of Austria and Stiria, with the province of Carinthia, to his two sons Albert and Rodolph, Dec. 27, 1282.

This brings us to the *History of Austria under the House of Hapsburg*.—I. From 1282 to 1526. Albert and Rodolph transferred Carinthia to Meinhard, count of Tyrol, father-in-law to Albert. In 1283, they concluded a treaty, by which Albert was made sole possessor of Austria, Stiria, and Carniola. Vienna, having again renounced its privileges as an imperial city, was made the residence of the court, and the successors of Rodolph, from this time, assumed *Austria* as the family title. The introduction of the Hapsburg dynasty was the foundation of the future greatness of A. The despotic Albert was assailed by Hungary and Bavaria, and, in 1298, he won the Roman crown in an engagement with Adolphus of Nassau. After this, he undertook the conquest of Switzerland; but was assassinated, May 1, 1308, at Rheinfelden, by his nephew, John of Suabia (see *John the Parricide*), from whom he had basely withheld his hereditary estates. The inheritance of John now fell to the five sons of the murdered Albert—Frederic, surnamed the *Fair*, Leopold, Henry, Albert, and Otho. They were forced to purchase of the emperor Henry VII the investiture of their paternal estates (consisting, in 1308, of 26,572 square miles), for 20,000 marks of silver. Under their father, in 1301, the margraviate of Suabia was added to the territories of Austria, and the contest with Bavaria ended in the cession of Neuberg. On the contrary, the attempt of duke Leopold, in 1315, to recover the forest-towns of Switzerland, which had been lost under Albert, was frustrated by the valor of the troops of the Swiss confederacy in the battle of Morgarten. In 1314, his brother Frederic, chosen emperor of Germany by the electors, was conquered by his rival, the emperor Louis (of Bavaria), in 1322, at

Mühdorf, and was his prisoner, for two years and a half, in the castle of Trausnitz. The dispute with the house of Luxemburg, in Bohemia, and with pope John XXII, induced the emperor, in 1325, to liberate his captive. Upon this, the latter renounced all share in the government, and pledged himself to surrender all the imperial domains which were still in the possession of A. But Leopold considered the agreement derogatory to his dignity, and continued the war against Louis. Frederic, therefore, again surrendered himself a prisoner in Munich. Moved by his faithful adherence to his word, Louis concluded a friendly compact with Frederic, and made preparations for their common government, Sept. 7, 1325. These preparations, however, were never carried into execution; for the agreement had been concluded without the consent of the electors. Leopold died in 1326, and Henry of A. in 1327; Frederic also died without children, Jan. 13, 1330, after which his brothers, Albert II and Otho, came to a reconciliation with the emperor Louis. After the death of their uncle, Henry, margrave of Tyrol and duke of Carinthia (the father of Margaret Maultasch), they persuaded the emperor to grant them the investiture of Tyrol and Carinthia, in May, 1335: they ceded Tyrol, however, to John, king of Bohemia, by the treaty of Oct. 9, 1356, in behalf of his son John Henry, or rather of his wife, Margaret Maultasch. In 1344, after the death of Otho and his sons, Albert II, called the *Wise*, united all his Austrian territories, which, by his marriage with the daughter of the last count of Pfirt, had been augmented by the estates of her father in 1324, and by the Kyburg estates in Burgundy in 1326. Of the four sons of Albert II (Rodolph, Albert, Leopold and Frederic), Rodolph II (IV) completed the church of St. Stephen's, and died at Milan, in 1365, without children, a short time after his youngest brother, Frederic. In 1379, the two surviving brothers divided the kingdom, so that Albert III (with the queue) became master of Austria, and gave the other territories to his brother Leopold III, the Pious. Leopold had made repeated attempts to gain the Hapsburg possessions in Switzerland. He was killed, July 9, 1386, on the field of Sempach, where he lost the battle in consequence of the valor of Winkelried, and Albert administered the government of the estates of his brother's minor sons. Margaret Maultasch ceded Tyrol to him on the death of Meinhard, her only son,

who was married to the sister of Albert. She retained nothing but a few castles and 6000 marks of gold. Her claims to Bavaria, also, she renounced, in consideration of receiving Schärding and three Tyrolese cities, Kitzbühl, Ballenberg and Kuffstein, and 116,000 florins of gold. In 1365, Leopold III had bought the claims of the count of Feldkirch for 36,000 florins; for 55,000 florins Austria received Brigau from the count of Fürstenberg, with the cities of Neuberg, Old Brisach, Kentzingen, and Billingen. The remainder of Carniola and the Windisch Mark, after the death of the last count of Görz, were purchased, together with the county of Pludentz, from the earl of Werdenberg, and the possessions of the count of Hohenberg, for 66,000 florins; and the city of Trieste was acquired, in 1380, by aiding in the war between Hungary and Venice. Moreover, the two governments of Upper and Lower Suabia were pledged for 40,000 florins by the king of Rome, Wenceslaus, to duke Leopold. The Austrian and Stirian lines, founded by Albert III and Leopold III, his brother, continued for 78 years. In 1395, when Albert III died, his only son, Albert IV, was in Palestine. On his return, he determined to take vengeance on Procopius, margrave of Moravia, for his hostile conduct; but he was poisoned, in 1404, at Znaim. His young son and successor, Albert V, was declared of age in 1410; and, being the son-in-law of the emperor Sigismund, he united the crowns of Hungary and Bohemia in 1437, and connected them with that of Germany in 1438. But in the following year the young prince died. His posthumous son, Ladislaus, was the last of the Austrian line of Albert, and its possessions devolved on the Stirian line, 1457. From this time, the house of Austria has furnished an unbroken succession of German emperors. Hungary and Bohemia were lost for a time by the death of Albert V, and, after the unhappy contests with the Swiss, under Frederic III, the remains of the Hapsburg estates in Switzerland. But several territories were gained; and, to increase the rising splendor of the family, the emperor conferred upon the country the rank of an archduchy. The dispute which broke out between Frederic and his brothers Albert and Sigismund, relating to the division of their paternal inheritance, ended with the death of Albert, in December, 1464. In the course of the troubles which resulted from this quarrel, the emperor was besieged in the citadel of Vienna by the

citizens, who favored the cause of the murdered prince. Sigismund now succeeded to his portion of the estate of Ladislaus, and Frederic became sole ruler of all Austria. His son Maximilian, by his marriage with Mary, the surviving daughter of Charles the Bold, united the Netherlands to the Austrian dominions. But it cost Maximilian much anxiety and toil to maintain his power in this new province, which he administered as the guardian of his son Philip. His confinement at Bruges, in 1489, resulted in an agreement which was decidedly for his advantage; but he lost, at the same time, the duchy of Guelders. After the death of his father, which happened Aug. 19, 1493, he was made emperor of Germany, and transferred to his son Philip the government of the Netherlands. Maximilian I (see this article and *Germany*) added to his paternal inheritance all Tyrol, and several other territories, particularly some belonging to Bavaria. He also acquired for his family new claims to Hungary and Bohemia. During his reign, Vienna became the great metropolis of the arts and sciences in the German empire. The marriage of his son Philip to Joanna of Spain raised the house of Hapsburg to the throne of Spain and the Indies. But Philip died in 1506, 13 years before his father, and the death of Maximilian, which happened Jan. 12, 1519, was followed by the union of Spain and Austria: his grandson (the eldest son of Philip), Charles I, king of Spain (see *Charles V*), was elected emperor of Germany. In the treaty of Worms, April 28, 1521, and of Ghent, May 7, 1540, he ceded to his brother Ferdinand all his hereditary estates in Germany, and retained for himself the kingdom of the Netherlands. The house of A. was now the proprietor of a tract of country in Europe comprising 360,230 sq. miles. The emperor Charles V immediately increased the number of provinces in the Netherlands to 17, and confirmed their union with the German states, which had been concluded by his grandfather, under the title of the *circle of Burgundy*. In 1526, A. was recognised as a European monarchy.—II. *From 1526 to 1740.* Ferdinand I, by his marriage with Anna, the sister of Louis II, king of Hungary, who was killed in 1526, in the battle of Mohacs, acquired the kingdoms of Hungary and Bohemia, with Moravia, Silesia, and Lusatia, the appendages of Bohemia. Bohemia rejoiced to hail Ferdinand its king. Notwithstanding the divided opinions of the nobles, and the rising fortune

of his adversary, John von Zapolya (see *Hungary*), he was raised to the throne of Hungary, Nov. 26, 1526, by the Hungarian diet, and was crowned, Nov. 5, 1527. But Zapolya resorted for assistance to the sultan Soliman II, who appeared, in 1529, at the gates of Vienna. The capital was rescued from ruin solely by the prudent measures of the count of Salm, general of the Austrian army, and the imperial forces compelled Soliman to retreat. In 1535, a treaty was made, by which John von Zapolya was allowed to retain the royal title and half of Hungary, and his posterity were to be entitled to nothing but Transylvania. But, after the death of John, new disputes arose, in which Soliman was again involved, and Ferdinand maintained the possession of Lower Hungary only by paying the warlike sultan the sum of 30,000 ducats annually. This took place in 1562. Ferdinand was equally unsuccessful in the duchy of Würtemberg. This province had been taken from the restless duke Ulrich by the Suabian confederacy, and sold to the emperor Charles V; and, when his estates were divided, it fell to Ferdinand. Philip, landgrave of Hesse, the friend of duke Ulrich, took advantage of the opportunity offered him by the embarrassment of Ferdinand in the Hungarian war. With the aid of France, he conquered Würtemberg; but France ceded it again to Ulrich in the treaty of Caden, in Bohemia, concluded June 29th, 1534, on condition that the province should still be a fief of Austria, and, after the extinction of the male line of the duke, that it should revert to that country. The remaining half of Bregentz, the county of Thengen, and the city of Constance, were insufficient wholly to compensate these losses; nevertheless, the territory of the German line of the house of Austria was estimated at 114,468 square miles. Ferdinand received also the imperial crown in 1556, when his brother Charles laid by the sceptre for a cowl. He died July 25, 1564, with the fame of an able prince, leaving 3 sons and 10 daughters. According to the directions given in his will, the three brother divided the patrimony so that Maximilian II, the eldest son, who succeeded his father as emperor, obtained Austria, Hungary and Bohemia; Ferdinand, the second son, received Tyrol and Hither Austria; and Charles, the third, became master of Stiria, Carinthia, Carniola and Görz. But, in 1595, after the death of the archduke Ferdinand, the husband of Philippine Welser, the fair maid of Augs-

burg, his sons Andrew (cardinal and bishop of Constance and Brixen, and governor of the Netherlands for Spain) and Charles (margrave of Burgau) were declared incompetent to succeed their father, and his possessions reverted to his relations. In Hungary, the emperor Maximilian met with far better fortune than his father had done. The death of Soliman, at Sigeth, in 1566, was followed by a peace, and, in 1572, Maximilian crowned his eldest son, Rodolph, king of Hungary: he was afterwards crowned king of Bohemia, and elected king of Rome. In his attempts to add the Polish crown to his Austrian dominions, he was equally unsuccessful with his fourth son, Maximilian, who engaged in a similar enterprise after the decease of Stephen Bathori, in 1587. Maximilian died Oct. 12, 1576, and Rodolph, the eldest of his five sons, succeeded to the imperial throne. The most remarkable events, by which his reign is distinguished, are, the war against Turkey and Transylvania, the persecution of the Protestants, who were all driven from his dominions, and the circumstances which obliged him to cede Hungary, in 1608, and Bohemia and his hereditary estates in Austria, in 1611, to his brother Matthias. From this time we may date the successful exertions of the Austrian sovereigns to put down the restless spirit of the nation, and to keep the people in a state of abject submission. Matthias, who succeeded Maximilian on the imperial throne, concluded a peace for 20 years with the Turks; but he was disturbed by the Bohemians, who took up arms in defence of their religious rights. Matthias died March 20, 1619, before the negotiations for a compromise were completed. The Bohemians refused to acknowledge his successor, Ferdinand, and chose Frederick V the head of the Protestant league, and elector of the palatinate, for their king. After the battle of Prague, 1620, Bohemia submitted to the authority of Ferdinand. He immediately applied himself to eradicate Protestantism out of Bohemia Proper and Moravia. At the same time, he deprived Bohemia of the right of choosing her king, and of her other privileges. He erected a Catholic court of reform, and thus led to the emigration of thousands of the inhabitants. The house of Hapsburg has presented an example, which stands alone in history, of the manner in which violence and tyranny can check the progress of civilization; and Bohemia, the land of Huss, the land where religious freedom has been defended with

such heroic zeal, is now greatly inferior in cultivation to every other country of western Europe. The Austrian states also, favoring, in general, the Protestant religion, were compelled by Ferdinand to swear allegiance to him, and Lutheranism was strictly forbidden in all the Austrian dominions. The province of Hungary, which revolted under Bethlen Gabor, prince of Transylvania, was, after a long struggle, subdued. This religious war dispeopled, impoverished and paralyzed the energies of the most fertile provinces of the house of Austria. During the reign of Ferdinand III, the successor of Ferdinand (1637—57), Austria was continually the theatre of war. In the midst of these troubles, Ferdinand ceded Lusatia to Saxony at the peace of Prague, concluded in 1635; and, when the war was ended, he ceded Alsace to France, at the peace of Westphalia, in 1648. The emperor Leopold I, son and successor of Ferdinand III, was victorious through the talents of his minister, Eugene, in two wars with Turkey; and Vienna was delivered, by John Sobieski (q. v.) and the Germans, from the attacks of Kara Mustapha, in 1683. In 1687, he changed Hungary into a hereditary kingdom, and joined to it the territory of Transylvania, which had been governed by distinct princes. Moreover, by the peace of Carlovitz, concluded in 1699, he restored to Hungary the country lying between the Danube and the Theiss. It was now the chief aim of Leopold to secure to Charles, his second son, the inheritance of the Spanish monarchy, then in the hands of Charles II, king of Spain, who had no children to succeed him; but his own decision, and the artful policy of France, induced Charles II to appoint the grandson of Louis XIV his successor. Thus began the war of the Spanish succession, in 1701. Leopold died May 5, 1705, before it was terminated. The emperor Joseph I, his successor and eldest son, continued the war, but died without children, April 17, 1711. His brother Charles, the destined king of Spain, immediately hastened from Barcelona to his hereditary states, to take upon him the administration of the government. He was elected emperor, Dec. 24 of the same year; but was obliged to accede to the peace of Utrecht, concluded by his allies, at Rastadt and Baden, in 1714. By this treaty, Austria received the Netherlands, Milan, Mantua, Naples and Sardinia. In 1720, Sicily was given to Austria in exchange for Sardinia. The duchy of Mantua,

occupied by Joseph in 1708, was now made an Austrian fief, because it had formed an alliance with France, prejudicial to the interests of Germany. This monarchy now embraced 191,621 square miles, and nearly 29 million inhabitants. Its annual income was between 13 and 14 million florins, and its army consisted of 130,000 men; but its power was weakened by new wars with Spain and France. In the peace concluded at Vienna, 1735 and 1738, Charles VI was forced to cede Naples and Sicily to don Carlos, the infant of Spain, and to the king of Sardinia a part of Milan, for which he received only Parma and Piacenza. In the next year, by the peace of Belgrade, he lost nearly all the fruits of Eugene's victories, even the province of Temeswar; for he was obliged to transfer to the Porte Belgrade, Servia, and all the possessions of Austria in Walachia, Orsova and Bosnia. All this Charles VI willingly acceded to, in order to secure the succession to his daughter, Maria Theresa, by the *Pragmatic sanction*. This law of inheritance was passed 1713—1719, and acknowledged, one after another, by all the European powers.

History of Austria under the House of Hapsburg-Lorraine.—I. From 1740 to 1790. By the death of Charles VI. Oct. 20, 1740, the male line of the Austrian house of Hapsburg became extinct; and Maria Theresa (q. v.), having married Stephen, duke of Lorraine, ascended the Austrian throne. On every side her claims were disputed, and rival claims set up. A violent war began, in which she had no protector but England. Frederic II of Prussia subdued Silesia; the elector of Bavaria was crowned in Lintz and Prague, and, in 1742, chosen emperor under the name of *Charles VII*. Hungary alone supported the heroic and beautiful queen. But, in the peace of Breslau, concluded June 4, 1742, she was obliged to cede to Prussia Silesia and Glatz, with the exception of Teschen, Jägerndorf and Troppau. Frederic II, by assisting the party of Charles VII, soon renewed the war. But Charles died Jan. 20, 1745, and the husband of Theresa was crowned emperor of Germany under the title of *Francis I*. A second treaty of peace, concluded Dec. 25, 1745, confirmed to Frederic the possession of Silesia. By the peace of Aix-la-Chapelle, Oct. 18, 1748, Austria was obliged to cede the duchies of Parma, Piacenza and Guastalla to Philip, infant of Spain, and several districts of Milan to Sardinia. The Aus-

trian monarchy was now firmly established; and it was the first wish of Maria Theresa to recover Silesia. With this object in view, she formed an alliance with France, Russia, Saxony and Sweden. This was the origin of the seven years' war; but, by the peace of Hubertsberg, 1763, Prussia retained Silesia, and Austria had sacrificed her blood and treasures in vain. The first paper money was now issued in Austria, called *state obligations*, and the emperor Francis erected a bank to exchange them. After his death, Aug. 18, 1765, Joseph II, his eldest son, was appointed colleague with his mother in the government of his hereditary states, and elected emperor of Germany. To prevent the extinction of the male line of her family, Maria Theresa now established two collateral lines; the house of Tuscany, in her second son, Peter Leopold; and the house of Este, in the person of the archduke Ferdinand. For these separations, Maria Theresa indemnified the country by the confiscation of several cities, formerly pledged to Poland by Hungary, without paying the sum for which they stood pledged; by obtaining Galicia and Lodomeria in the first profligate division of the kingdom of Poland, in 1772; and by the capture of Bukowina, which was ceded by the Porte, in 1777. In the peace of Teschen, May 13, 1779, Austria received Innviertel, and the vacant county of Hohenembs in Suabia, the county of Falkenstein, and the Suabian territories of Tettmang and Argen; and thus, at the death of the empress, Nov. 28, 1780, Austria contained 234,684 square miles: it had lost 16,366 square miles, and gained 34,301. The population was estimated at 24 millions; but the public debt, also, had increased to 160 million florins. The administration of the empress was distinguished by the most useful institutions of government, agriculture, trade and commerce, the education of the people, the promotion of the arts and sciences, and of religion. The foreign relations of the kingdom, also, even those with the Roman court, were happily conducted by the talents of her minister, Kaunitz. (q. v.) Her successor, Joseph II (q. v.), was active and restless; impartial, but too often rash and violent. While a colleague with his mother in the government, he diminished the expenses of the state, and introduced a new system in the payment of pensions and of officers. But, after the death of his mother, all his activity and talent as a sovereign was fully developed. As

severe to the military as to the civil officers, he adhered, however, to liberal principles. The censorship of the press was reformed; the Protestants received full toleration, and the rights of citizens; the Jews were treated with kindness; 900 convents and religious establishments were abolished, and even the visit of Pius VI made no alteration in Joseph's system of reformation. The system of education he subjected to revision and improvement; and he encouraged manufactures by heavy duties on foreign goods. But his zeal excited the opposition of the enemies of improvement. The Low Countries revolted, and his vexation probably led him to attempt the exchange of the Netherlands, under the title of the *kingdom of Austrasia*, for the palatinate of Bavaria, under an elector. But the project was frustrated by the constancy and firmness of the next agnate, the duke of Deux-Ponts, and by the German league, concluded by Frederic II. Joseph was equally unsuccessful in the war of 1788 against the Porte. His exertions in the field destroyed his health; and grief at the rebellious disposition of his hereditary states accelerated his death, which happened Feb. 20, 1790.—II. *From 1790 to 1815.* Joseph II was succeeded by his eldest brother, Leopold II (q. v.), formerly grand duke of Tuscany. By his moderation and firmness, he quelled the turbulent spirit of the Netherlands, and restored tranquillity to Hungary. The treaty of Reichenbach, with Prussia, July 27, 1790, and the treaty of Sistova, Aug. 4, 1791, led to a peace with the Porte. The unhappy fate of his sister and her husband, Louis XVI of France, induced him to form an alliance with Prussia; but he died March 1, 1792, before the revolutionary war broke out. Soon after the accession of his son, Francis II, to the throne, and before the 14th of July, 1792, when he was elected German emperor, France declared war against him, as king of Hungary and Bohemia. (See *France*.) In the first articles of peace, dated at Campo-Formio, Oct. 17, 1797, Austria lost Lombardy and the Netherlands, and received, as a compensation, the largest part of the Venetian territory: two years previous, in 1795, in the third division of Poland, the Austrian dominions had been enlarged by the addition of West Galicia. In the beginning of the year 1799, the emperor Francis, in alliance with Russia, renewed the war with France. But Napoleon extorted the peace of Luneville, Feb. 9, 1801, and Francis acceded to it,

without the consent of England. By the conditions of the treaty, he was to cede the county of Falkenstein and the Frickthal. Ferdinand, grand duke of Tuscany, at the same time, renounced his claim to this province, and received, in return for it, Salzburg and Berchtesgaden, with a part of the territory of Passau, and was afterwards made master of the largest part of Eichstädt, and honored with the title of *elector*. Austria obtained the Tyrolese archbishoprics Trent and Brixen, and, notwithstanding its cessions of territory to France, had gained, including its acquisitions in Poland, 9580 square miles: this made the whole extent 253,771 square miles. The public debt had also increased to 1220 million florins. The first consul of France now caused himself to be proclaimed emperor; and, Aug. 11, 1804, Francis declared himself hereditary emperor of Austria, and united all his states under the name of the *empire of Austria*. Immediately after this important act, he took up arms once more, with his allies, Russia and Great Britain, against the government of France. The war of 1805 was terminated by the peace of Presburg (Dec. 26, 1805). By the conditions of the treaty, Francis was obliged to cede to France the remaining provinces of Italy; to the king of Bavaria Burgau, Eichstädt, a part of Passau, all Tyrol, Vorarberg, Hohenembs, Rothenfels, Tettngang, Argen and Lindau; to the king of Würtemberg the five towns lying on the Danube, the county of Hohenberg, the landgraviate of Nellenburg, Altdorf, and a part of Brisgau; and to the grand duke of Baden the remainder of Brisgau, Ortenau, Constance and the commandery of Meinau. He received, in return, Salzburg and Berchtesgaden; the elector of Salzburg was compensated by the province of Würzburg; and the dignity of grand master of the Teutonic order was made hereditary in the house of Austria. Thus ended a war which cost the Austrian monarchy, besides the territories just enumerated, 90 million florins, which were carried away by the French from Vienna, and 800 millions for the other expenses of the war; of which Francis paid a large proportion from his private purse. After the formation of the confederation of the Rhine (July 12, 1806), Francis was forced to resign his dignity as emperor of Germany (Aug. 6, 1806), which had been in his family more than 500 years. This was one of the most important consequences of the war. He now assumed the title of *Francis I, emperor of Austria*, and resolved, in 1809, on a

new war with France, aided only by Great Britain, who did nothing more than furnish some pecuniary assistance, and make a tardy attack on Walcheren. Austria fought courageously, but in vain. The peace of Vienna (Oct. 14, 1809) cost the monarchy 42,380 square miles of territory, 3,500,000 subjects, and more than 11 million florins of revenue. The public debt was also increased to 1200 million florins, and all the paper money in circulation was estimated at 950 millions. Napoleon, after tearing from the Austrian monarchy its fairest provinces,—the duchy of Salzburg, with Berchtesgaden, Innviertel, Western Hausruckviertel, Carniola and Görz, Trieste, the circle of Villach, a large part of Croatia, Istria, Ræzuns in the Grisons, the Bohemian territories in Saxony, all West Galicia, the circle of Zamoski in East Galicia, Cracow, with half the salt-works of Wieliczka, the circle of Tarnopol, and many other provinces which were given to Russia,—formed a personal connexion with the ancient family of Hapsburg by his marriage with Marie Louise, daughter of the emperor of Austria, and, March 14, 1812, concluded an alliance with the emperor Francis against Russia. But the emperor of France was repulsed, on his invasion of this country; Prussia rose up against him; the congress of Prague met and separated again without accomplishing any thing; and Francis, Aug. 10, 1813, declared war against France, and formed an alliance, Sept. 9, 1813, at Teplitz, with England, Russia, Prussia and Sweden, against his son-in-law. In the battle of Leipsic, the Austrian troops took an honorable part. The firmness with which the emperor signed the act of proscription against his son, and fixed the fate of his daughter and her infant, excited general respect. He signed the same act against Napoleon a second time, when he returned from Elba. He also opposed Murat in Italy. Yet the Austrian cabinet endeavored to provide for young Napoleon in the settlement of the affairs of France. By the peace of Paris, 1814, Austria gained the portion of Italy which now forms the Lombardo-Venetian kingdom, and recovered, together with Dalmatia, the hereditary territories which it had been obliged to cede. The former grand duke of Würzburg, on the contrary, ceded his territory to Bavaria, and again took possession of Tuscany.—In the new system of Europe, established at the congress of Vienna, which met in 1815, and by the treaty concluded with Bavaria, at Munich

(April 14, 1816), the Austrian monarchy not only gained more than 4238 square miles of territory, but was also essentially improved in compactness; and its commercial importance was increased by the accession of Dalmatia and Venice. The influence of this power among the states of Europe, in consequence of the congress of Vienna, as the first member of the great quadruple alliance (changed, by the congress of Aix-la-Chapelle, 1818, to a quintuple alliance), and as the head of the German confederation, has been continually increasing since the congress at Aix-la-Chapelle, as is evident to those who feel an interest in the history of the age. Of the foreign affairs of the government, which have been conducted by the prince von Metternich, the most important is the connexion of Austria with the German confederation. The imperial cabinet overruled the deliberations of the German confederates at Frankfort, through its minister, count Buol-Schauenstein (who was succeeded, in 1823, by the baron of Munch-Bellinghausen), so that all the decrees made in the congress of Carlsbad, in Aug., 1819 (see *Congress and Carlsbad*), relating to a general censorship of literary institutions, the suppression of liberal opinions and writings, and of secret societies, were unanimously adopted and published, Sept. 20, 1819, and renewed Aug. 16, 1824. A congress was held at Vienna, Nov. 25, 1819, composed of all the ministers of the German confederates, to draw up a constitution for the confederated states. It was signed at Vienna, May 15, 1820; and, June 8 of the same year, it was acknowledged at Frankfort as the universal law of the German confederation. (q. v.) The ideas of the Austrian cabinet, in regard to the political condition of Germany, were made known to the public by the remarkable *Lettre confidentielle de S. A. le Prince de Metternich à M. le Baron de Berstett, premier Ministre du Grand Duché de Baden*, June, 1820. This letter is printed in *Lesur's Annuaire* (Paris, 1821, p. 252). The united influence of A. and Prussia, in the military committee of the confederation, laid the foundation of the German military system, and regulated the numbers and distribution of the army of the confederacy, and the occupation and command of the fortresses of the empire. It must be observed, however, that A. (in conformity with the 18th art. of the constitution), abolished, in 1820, the right of emigration from its own states to those of the German allies, and concluded the Elbe navi-

gation acts (see *Elbe*) at Dresden, in 1821, and at Hamburg, in 1824. Saxony and Bavaria formed a closer connexion with the house of A., by a family union, in 1819 and 1824. The queen dowager of Saxony is a sister, and the wife of Frederick prince of Saxony a daughter, of the emperor Francis. November 4, 1824, the second imperial prince, the archduke Francis (born 1802), was married to Sophia, princess of Bavaria, half-sister of the empress of A. (The house of A. now exists in 24 separate branches.) Of the five principal powers which decided the political condition of Naples, Piedmont, Spain and Greece, in the congress of Troppau, 1820, Laybach, 1821, and Verona, 1822 (q. v.), A. was the first. The harmony which existed between the three founders of the *Holy Alliance*, so called, led to the establishment of the principles of legitimacy; and every one knows the important consequences of this union, in the maintenance of principles contrary to the spirit of the age and the law of nations; as in the law relating to the armed interference. A. executed the decrees of the congress as far as related to Naples and Piedmont. (See *Naples and Piedmont, revolution of*.) Her influence was felt in the Swiss confederacy. In the dispute between Portugal and Brazil, A., being connected with the emperor of Brazil by means of a family union, did not oppose the independence of the new empire, for which Great Britain interceded. The infant don Miguel swore allegiance, in Vienna, to the Portuguese constitution of 1826, and has since conducted like a robber and a madman. Time will probably show what share has been taken by A. in the disputes of the royal family of Portugal. To the alliance formed by Russia, Great Britain and France for the pacification of Greece (July 6, 1827), A. never acceded. Indeed, it is important for her that the Greeks should still remain in bondage; especially if the fall of the Porte (a power which the congress of Vienna declared to be indispensable to the other states of Europe) should increase the strength of Russia. This power already presses on the unprotected frontiers of A.: if it should extend its conquests in that direction, the trade of this country with Moldavia and Walachia would be entirely cut off. Moreover, it would be very prejudicial to her to have a constitutional state established in the south-east, on the confines of Hungary and Transylvania, which, by religious sympathies, would

exert an influence on Servia and the southern provinces of Hungary. When prince Alexander Ypsilanti, leader of the Heterists (see *Hetera*) in Moldavia, entered the Austrian territory, he was detained by the Austrian authorities at Munkatsch, and afterwards in Theresienstadt, as a public prisoner, and liberated, at last, in 1827. A. prohibited all societies for the aid of Greece, and all contributions of money or arms: the Greeks from Russia were forbidden to march through the country, and the Philhellenes were forbidden to traverse her territories to reach the ports of the Adriatic.* On the other hand, A. aided (by its inter-nuncios in Constantinople) the efforts of the British ambassador to settle the disputes between Russia and the Porte, and effected the evacuation of the principalities by the Turkish troops; which led, also, to the conclusion of the treaty of Ackerman, in 1826. (See *Ottoman Empire*.)—In its politics, both at home and abroad, A. has more influence than any other state in Europe, in suppressing liberal opinions and resisting the claims of the age. The cabinet has recourse to measures, of which other cabinets, striving after the same end, are as yet ashamed. The subjects are forbidden to praise or blame the administration; and thus no one is permitted to express any political opinions. The citizens are cut off from literary intercourse with other nations by a twofold censorship established on the frontiers. There are, likewise, in Austria, different kinds of prohibited books: some are wholly prohibited; others are prohibited to all but the learned; and the whole nation has been, for centuries, destitute of the means of high intellectual cultivation. They are good-natured and lively. Eating, drinking, dancing, music and women make up the sum of an Austrian's enjoyment. If his emperor allows these indulgences, he receives the approbation of his subjects, even though he appropriates the estates of orphans, which have been intrusted to the government, and proclaims a public bankruptcy. Every restraint is used to

* The semi-official paper at Vienna, the *Cestreichisch Beobachter* (the Austrian Observer), which is entirely subservient to the government, constantly wrote against the Greeks, and in favor of the Turks. It is worth while to mention here the definition which this paper (on the whole, an able one) gave of *legitimacy*, when the question rose, whether the Turks were a legitimate power or not, and whether, in consequence, the Greeks were rebels or not. The Observer said, that any power was legitimate, with which other legitimate powers had concluded treaties for a series of years!!

keep the spirit of the people stagnant. Francis, on his visit to Laybach, 1820, observed to the professors there, that he wished for no learned men; that he needed good, loyal citizens, and common schools were quite sufficient for their education. The administration of justice, except in political cases, is good; for a perfect despotism, as well as a free government, requires that the rights of all the people should be equally respected. But, in state trials, every species of injustice is permitted. The policy of A. has been characterized, for ages, by an insatiable thirst for the extension of her territory, and by the oppression of every country which she has held in subjection, except during the reign of Joseph II. She has contended with France, for centuries, for the control of Europe; and no one can tell what she yet may effect by means of the son of Napoleon, who was, at first, destined to the clerical profession, but afterwards suddenly took up that of a soldier. A. has always directed its efforts towards Italy and the East, and the former may now be regarded as wholly dependent on her. (See *Metternich*.) The internal government is remarkable for the constant embarrassment of the financial department, which leads to the most unjust and arbitrary measures. The state becomes bankrupt, extorts loans, and compels the borrowers to make new ones to secure the first. In order to smother every liberal sentiment, foreigners engaged in private instruction, especially the Swiss, have been generally expelled from the empire. The adherents of Carbonarism have been condemned to death (see *Italy*); and, in July, 1824, several persons, on account of their opinions and writings, were forbidden to enter the Austrian states; among them were lady Oxford, Mrs. Hutchinson, lady Morgan and lord Holland. Finally, an imperial decree has been issued, that all works written by Austrians in foreign countries should undergo the censorship of the press at home; and, in 1824, the order was extended to engravings, lithographs and other prints. The archduke Rodolph was chosen by the ecclesiastical chapter, and appointed archbishop of Olmütz, by pope Pius VII. His brother, the emperor, confirmed him in this dignified office; and, soon after (Aug. 2, 1819), he was made a cardinal. In the autumn of 1820, the emperor travelled to Presburg and Ofen. He pledged himself to the nobles of the palatinate of Pest, to maintain inviolate the constitution of the

country, as the palladium of its privileges and the security of its happiness. His speech on this occasion contained the following specimen of elegant Latin:—"Totus mundus delirat, et relictis antiquis suis legibus, constitutiones imaginarias quarit" (The whole world is mad; they have deserted the good laws of their fathers, and run after the shadows of constitutions).—The public measures have lately raised the financial credit of the government. All that has been done for this department since the charter of March 21, 1818, is recounted in a subsequent article (*Funds, public*) where the lottery loans of Rothschild are also described. From the report of the committee chosen to examine the operations of the sinking fund, it appeared, that, of the old debt (contracted before the year 1815), nearly 39,000,000 florins were discharged in 1824; and the new debt (contracted since 1815), amounting to 208,000,000 florins, was considerably diminished. But the sinking fund was so increased after its establishment (March 1, 1817), that, in 1825, the amount disposable was estimated at more than 160,000,000 florins. The public debt has since been regularly reduced. From the annual report of the president of the bank of A., the count of Dietrichstein, now deceased, it appears, that, in seven years previous to Jan. 10, 1825, 284,342,600 florins of the paper money in circulation had been redeemed. In order to raise the value of the depreciated paper currency, a particular fund was established to redeem it, and the rate fixed at 250, since 1816. The paper florin is worth 6 groschen, 8 pfennige and 20 kreuzer, = 50 kreuzer of Vienna currency. Loans were afterwards instituted to increase the quantity of specie in the monarchy, and to promote the payment of old arrears. Of these, the loan of two and a half million pounds sterling, made at London, in the close of the year 1823, was destined for the payment of the British demands (from 1794 to 1800), liquidated Nov. 23, 1823. Notwithstanding this, the Austrian paper money increased to such a degree, that, in the beginning of 1825, the national securities at five per cent. (*metalliques*) stood, in Frankfort, at almost 96 (on the 6th of Aug., 1827, at more than 91), and the bank stocks at more than 1400 (on the 6th of Aug., 1827, at 1302), while, at the end of 1820, the former had stood at only 73, and the latter at scarcely 552.* By its ar-

* The public debt of the Lombardo-Venetian kingdom is managed separately. In 1822, a

tificial financial system, A. has made the rich speculators of many other countries dependent on itself, and rendered it their interest to promote her power and influence. The prosperity of agriculture is closely connected with the improvement of the finances. In order to gain a knowledge of the state of the country in general, it was decided, in 1819, to establish a committee of topography and statistics (taking the Prussian board as a model), and to connect it with the council of state. This led to an attempt to drain the morasses of Laybach. In the next year, the new system of taxation was completed. To divide the expenses of the government more equally, the whole monarchy had been surveyed in the time of Joseph II. To facilitate the trade of Italy with the south of Germany, the road from Chiavenna over the Splügen has been built since 1820, with the aid of the neighboring Swiss cantons; and a new passage from Italy to South-eastern Germany was opened in September, 1824, by a splendid road through Bormio and Tyrol. (See *Alps, roads over.*) For the completion of the Alpine roads over the Splügen and mount St. Bernard, A. concluded a treaty with Sardinia, May 20, 1824, to which the cantons of the Grisons and Tessin acceded. The canal from Vienna to the borders of Hungary has been opened, and another from Vienna to Trieste, to unite the Danube with the Adriatic sea, has been begun.* In 1820, the canal from Milan to Pavia was finished, connecting Milan with the gulf of Venice. In the commencement of the 19th century, Bohemia contained only 280 miles of regular roads; at present, it contains 1104 miles. The Danube has been connected with the Moldau by means of a rail-road, which is carried over the mountains from Mauthausen, in Upper Austria, to Budweis, in Bohemia; in all, 75 miles. The navigation of the Danube and the trade of Turkey were opened to the subjects of Austria by the new commercial treaty concluded with the Porte in 1818: at the same time, the commerce of the Mediterranean became an object of importance. The arrivals and clearances at the free port of Trieste amount annually to 2200 vessels; and the state, which numbered, in 1815, only 157

bank (*monte*) was erected at Milan for the payment of it.

* The house of Fries and company hired, in 1822, the navigable portion of the canal of Lower Austria, and undertook to continue it to the Adriatic, by forming an incorporated canal company.

licensed vessels, had, in 1820, exclusive of coasters, 528 trading vessels, of 110,500 tons burden, 6636 sailors and 2369 guns. The naval force was increased for the protection of trade; and the emperor erected, at Venice, a college for the instruction of young naval officers.—In August, 1819, young men were prohibited from entering foreign universities, and a resolution was made, Sept. 25, 1819, to establish a Lutheran theological institution in the centre of the empire. This “theological school for the adherents to the Augsburg confession,” was opened at Vienna, April 2, 1821. The professors are native theologians, and the two Protestant consistories exercise a general superintendence over the whole. The government, at the same time, received into Galicia 50 Jesuits, who were banished from Russia in 1820, and appropriated to their use the great Dominican monastery at Tarnopol. Lyceums also were erected, or instructors provided for those already in existence. Towards the close of this year, the Redemptorists (q. v.) were established in Vienna, and the Jesuits instituted a school in this capital. In the public papers of the year 1821, an order was issued, forbidding private persons in the city and in the provinces to send abroad for instructors; especially since the education of youth might be intrusted to the Jesuit fathers, and their colleagues, the Redemptorists. In November, 1822, the Bible societies were once more forbidden to distribute Bibles in the Austrian dominions, particularly the Bohemian Bible, printed in Berlin; or to sell them at reduced prices. The Protestant society in Prague has lately erected a school. About 40 inhabitants of Galneikirchen, in the country above the Ens, went over to the Protestant church in the year 1821, and the little Protestant community at Venice had already been recognised in the year 1820. The medical institution of Joseph was reopened at Vienna, in November, 1824, on a new plan.—As to the military affairs of the empire, since 1819, the government has been employed in erecting fortifications on the borders of Galicia. In 1823, 25,000 men were dismissed from the standing army. Instead of the grants made by Napoleon to the Italian officers in Tyrol, the emperor gave them, in 1821, a yearly pension from the year 1814.* The military schools

* The pensions were also continued to the civil officers of the former kingdom of Italy, which they would have received if the kingdom had not ceased to exist.

established in several regiments, on the Lancasterian plan, have been abolished since 1821. But there are 53 schools, in each of which 48 children, belonging to the foot-soldiers of the German and Hungarian regiments, are instructed. The Milan school for the Italian regiments is designed for 250 boys. There is an engineering academy, at Vienna, for the education of officers; and in the military academy at Wienerisch-Neustadt, 327 cadets are educated at the expense of the state. The cadet schools at Olmütz and Gratz are still in a flourishing condition; and an institution has been set on foot for the daughters of officers, at Herrnhals, where 46 pupils can be instructed. Von Hietzinger published, at Vienna, in 1822, in 2 vols., the statistics of the Austrian military districts, established in the year 1807. A comparison of this account with the statistics of the military colonies of Russia (q. v.) affords interesting views. A., it is well known, first carried into effect the idea of military colonies, by the grant of lands to 18 Slavonic regiments, along the confines of Turkey. These regiments have the same origin, the same language and the same religion with the majority of the Russians. The whole country is divided into 214 company-districts and 8 squadron-districts. Of the male population, in 1820, only 16,834 men were exempt from military duty. The troops consisted of 17 regiments of infantry, one battalion of Tschaikistes, and a regiment of Hussars; together, 45,579 men, exclusive of the civil officers. In case of war, this number can be increased to 70,000, including the reserves, besides the militia, which are kept under pay. The common service in the *cordon* on the frontiers requires 4200 men. In case of troubles in Turkey, or reports of the plague, 6800 are called out; if the danger is imminent, 10,000 men are brought into action, and often dismissed again within 8 or 14 days. The inhabitants on the frontiers are obliged to serve, on an average, at least 100 days yearly. The revenue of the frontier settlements was estimated, in 1820, at 1,553,000 florins, convention-money (see *Money, standard of*); but the money expended on them was 2,457,900 such florins; 1,384,800 of which were applied to the support of the troops stationed there. (See *Military frontiers*.) The economical regulations of the Austrian army are described by Hübler; and an account of the nature of their discipline is given by Bergmayer (Vienna, 1821). The Austrian Military Journal,

conducted by captain Schels, is full of information on this subject. The best map of the Austrian empire is that prepared by the topographical cabinet of the quarter-master-general's staff, drawn under the direction of colonel Fallon. It is in nine sheets, published at Vienna, in 1822. According to this map, the Austrian monarchy embraces, I. The hereditary states of Austria, which form a part of the German confederacy; 76,199 square miles, 9,843,490 inhabitants. They contain, 1. The arch duchy of Austria; 14,833 square miles, 1,908,200 inhabitants: *a.* Austria below the Ens, or Lower Austria (7713 square miles, 1,119,900 inhabitants), embracing Vienna, the capital: *b.* Austria above the Ens, or Upper Austria, including the Innviertel, the Hausruckviertel and the Salzach or Salzburg circle (the duchy of Salzburg, q. v.); 7119 square miles, 788,282 inhabitants. 2. The duchy of Stiria; 8454 square miles, 780,100 inhabitants. 3. The county of Tyrol, raised to a principality, with several districts of Salzburg, and the Vorarlberg dominions; 11,569 square miles, 738,000 inhabitants. 4. The kingdom of Bohemia, with Eger and Asch; 20,172 square miles, 3,380,000 inhabitants. 5. The margraviate of Moravia, with Austrian Silesia; 10,192 square miles, 1,805,500 inhabitants. 6. The duchy of Auschwitz, lying in Galicia, but included in the German confederacy, as an ancient Bohemian fief and Silesian principality; 1843 square miles, 335,190 inhabitants. 7. The kingdom of Illyria; 9132 square miles, 897,000 inhabitants. This kingdom includes, *a.* the government of Laybach, or the duchies of Carniola and Carinthia: *b.* the government of Trieste, or the Littorale; 3242 square miles, 370,000 inhabitants.—II. The hereditary states of Hungary; 125,105 square miles, 10,628,500 inhabitants. They contain, *a.* the kingdom of Hungary, with the provinces of Slavonia and Croatia; 88,574 square miles, 8,200,000 inhabitants: *b.* the grand principality of Transylvania (exclusive of the military districts); 18,350 square miles, 1,435,000 inhabitants: *c.* the Austrian military districts; 1. in Croatia; Banat, Warasdine and Carlstadt, united under one governor, in 1824, together with the Banat military lands, 995 square miles, 96,000 inhabitants; likewise the two *generalats*, 5022 square miles, 301,200 inhabitants: 2. in Slavonia; 2945 square miles, 244,000 inhabitants: 3. the Hungarian and Bannatic military lands; 3856 square miles, 205,000 inhabitants: 4. the Transylvanian military

frontiers; 5361 sq. miles, 147,300 inhabitants.—III. The kingdom of Dalmatia, with Ragusa and Cattaro, containing 5627 square miles, and 320,000 inhabitants.—IV. The Lombardo-Venetian kingdom; 17,608 square miles, 4,176,000 inhabitants.—V. The kingdom of Galicia and Lodomeria, with the province of Bukowina; 32,272 square miles, 4,075,000 inhabitants.—Thus the whole Austrian monarchy contains more than 256,399 square miles, and upwards of 29 million inhabitants. By the census of 1826, the population is estimated at 30½ millions. Besides this, the collateral lines of A. have many valuable possessions:—Tuscany and Este (Modena and Massa), containing 10,489 square miles, and 1,618,500 inhabitants. The principal nations of A. are, 1. the Sclavonians, 13,400,000; 2. the Germans, 5,900,000; 3. the Italians, 4,350,000; 4. the Magyars, or Hungarians, 4,000,000; 5. the Walachians, 1,700,000; 6. the Jews, 450,000; 7. the Zigeunes, or Gipsies, 110,000; 8. the Armenians, 13,052; 9. the Greeks, 3910; together with Clementines, Turks, Albanese, French, &c. The most populous part of Austria is the Lombardo-Venetian kingdom: the population is 237 to a square mile. Next to this are Bohemia and Moravia, above and below the Ens. The smallest population is found in the military districts on the frontiers, Carinthia and Tyrol, Salzburg and Dalmatia. According to the local returns, published by the geographical board of Vienna in 1822, edited by colonel Fallon, and prepared in the preceding year, the rate of the annual increase of the population appears to be as follows:—

In Hungary and Transylvania, . . .	1 $\frac{45}{100}$
Austria Proper, Stiria and Transylvania,	2 $\frac{35}{100}$
Bohemia, Galicia, Illyria, and Moravia,	2 $\frac{32}{100}$
Dalmatia, Tyrol, and the Lombardo-Venetian kingdom, . .	2 $\frac{12}{100}$

This statement gives an increase, in 12 years, on the population of 1815, calculated at 27,000,000, of more than 27 per cent.; in fact, nearly 7,000,000. Different authorities agree, up to the year 1821, in a rate of increase, which, if continued to 1828, would make that increase more than 7,000,000. The monarchy numbers 777 cities, 635 suburbs, 2224 market-towns, and 69,105 villages. The most populous cities are, Vienna, Milan, Venice, Lemberg, Padua, and Debreczyn (population, 41,175.)—Of the numerous

navigable rivers, the largest are, the Danube, Ens, Morawa or Marsch, Leytha, Raab, Drave, Save, the Po, the Elbe, the Moldau, Eger, Oder, Vistula, and Dniester. Thirty canals, seven of them very large, have been constructed, during the reign of the present emperor, for the promotion of trade.—The largest lakes are, Neusidle, Platten, Palitsch, Cirknitz and Lago Maggiore.—The mountains are, 1. The Alps, which present a surface of 48,397 square miles: the Ortlesspitze is 14,466 feet high; the Great Glockner, 12,239; Hohenwart, 10,392; Wiesbachhorn and Hochhorn, 10,600—11,000; Terglou, 9,744; Watzmann, 9,600; Brennkogal, 9,000. 2. The Sudetes (white meadows, 4,500 feet high), Paschkopol. 3. The Carpathian mountains.—The climate is different in different parts of the empire.—The Austrian mines and washings yield, annually, of gold, 3,900 marks; of silver, 108,000 marks; upwards of 2,200 tons of copper; of tin, 100; of iron, 69,000; of mercury, 281; of cinnabar, 435; cobalt, 88 tons; calamine and zinc, 386 tons; arsenic, chrome, tellurium, uranium, antimony (383 tons), manganese, bismuth, loadstone, precious stones, marble, porcelain, meerschauum, coal, sulphur, salt, &c.—There are also 600 mineral springs in the empire, of which Bohemia alone contains 150; the most celebrated are at Carlsbad, Teplitz, Franzensbad, Marienbad, Seidschütz, Bilin, Baden, Gastein, Meadia in the Bannat, Albano in Italy, &c.—Austria furnishes wheat, and similar kinds of grain, in abundance; also maize, rice, pulse, fruits, including the best southern fruits, oil, &c., wine, hops, saffron, tobacco, hemp and flax, woad, various woods, black-cattle, buffaloes, horses, asses and mules, sheep, goats, swine, poultry, wild beasts, fishes, pearl-oysters, bees (which yield, annually, 1200 tons of wax and 19,500 tons of honey), silk (2,570,000 pounds). Prince Liechtenstein, at Eisgrub, in Moravia, has the largest plantation of foreign woods in Europe. Every branch of agriculture is prosecuted with care and skill, and the raising of sheep is particularly attended to. There are still, however, in Hungary, 2119 square miles of morass. The most fertile and best cultivated part of the empire is the Lombardo-Venetian territories. The manufacture of silk, in this district, has also been highly improved by count Dandolo. The manufactures yield, annually, 1425 million florins, convention-money. They consist of watches and clocks, porcelain, mirrors, and brass, iron and steel,

linen, cotton, paper, tobacco, sugar, wool, silk, leather, bleached wax. The trade has increased since the recovery of Italy. The exports of the country amount to more than 36 million florins, convention-money (see *Money*); and the imports to 44 millions. The principal sea-ports are Trieste, Venice, and Fiume: other places of trade are Vienna, Prague, Pest, Lemberg, Brody and Gratz. The bank of Vienna affords the most important support to the commercial interests of the state: the same advantage is derived from the Austrian national company of commerce, lately erected for the sale of merchandise, and the promotion of trade.—The prevailing religion is the Roman Catholic. The bishoprics in Germany and Hungary are richly endowed, particularly the archbishoprics of Gran, Colocza, Olmütz, Erlau, &c. The whole number is 14. In Lemberg and in Venice there is an Armenian Catholic archbishop, and in Venice a Catholic patriarch. The Greek church is under the archbishop of Carlovitz. The Lutherans and Calvinists have consistories and superintendents; and in Hungary and Transylvania, their civil rights are nearly equal to those of the Roman Catholics. There are also Mennonites, Mohammedans, &c., in various parts of the empire. The number of Catholics in A. is estimated at 23,978,000; members of the Greek church, 2,814,378; Calvinists, 1,584,716; Lutherans, 1,119,800; Unitarians, 49,000.—Universities are established at Vienna, Prague, Pest, Lemberg, and Pavia. There are lyceums at Lintz, Gratz, Brünn, Grosswardein; a mining academy at Schemnitz; a medical school at Vienna; an academy for painting, sculpture, architecture and engraving at Vienna; a library; a gallery of paintings; collections of medals and other antiquities, which are deserving of notice.—The government is a monarchy; in Hungary and Transylvania, a limited monarchy: in the other territories of the empire, the estates (of which there are four in Tyrol, including the peasantry) are convened to grant the supplies called for to meet the expenses of government. But the system of imposts and customs, existing between the different districts, is an impediment to commerce. The law of primogeniture prevails in regard to the succession to the throne. There are seven knightly orders.—1. that of the golden fleece; 2. of the starry cross, for ladies of princely or ancient noble families; (the following being also orders of merit); 3. the milita-

ry order of Maria Theresa; 4. the royal order of St. Stephen, in Hungary; 5. the imperial Austrian order of Leopold, which has existed since 1808; 6. the order of the iron crown (renewed in 1816); 7. the order of Elizabeth Theresa, for officers only, who have risen, at least, to the rank of colonels. There are, also, in Austria, *a.* the ancient imperial Teutonic order, of which an archduke is appointed grand-master by the emperor; *b.* the spiritual order of St. John, which has a grand-priorate in Bohemia, and several commanderies in Upper and Lower Austria; *c.* the order of the cross, with the red star. At the head of the administration, under the direction of the emperor, stands the privy-counsellor for home affairs. There are two departments of government, one for foreign and the other for domestic affairs, both under the direction of a minister. The judicial system is mild and well-regulated. The civil code, completed July 1, 1811, is very good. The courts were much improved as early as 1781. A general penal code was adopted Jan. 1, 1804. These laws are in force only for the German, Galician, and Italian territories, for Dalmatia, and the military districts. The revenue of the state (including the extraordinary income) is estimated at 220 million florins of silver, and the interest of the public debt at 22 millions yearly. By the loan of 1827, the public debt was increased to 680 million florins. This estimate is exclusive of 98,025,413 florins in redemption and anticipation certificates (*einlösungs und anticipations scheine*), which were in circulation June 30, 1827. The standing army, in time of peace, is composed of 271,400 men, including 39,000 horse, and 17,790 artillery. The supplementary troops, the reserve, and the militia, together, comprise about 479,000 men. The naval force consists of three ships of the line, six frigates, three corvettes, three brigs and four schooners. There are, also, in the empire, 25 fortresses, and 59 fortified towns.—On the history of the Austrian monarchy, see the works of Genersich (*Vienna*, 8 vols. 1817); Coxe (*History of the House of Austria*, London, 1807, 3 vols. 4to.); J. B. Schels's *History of Austria* (Vienna, 1819—27, 9 vols., to the time of Joseph II). In regard to the statistics of this country, the following works are valuable:—*Darstellung des Fabrik- und Gewerbes in seinem gegenw. Zustande; vorzügl. in technischer mercantil. und statistisch. Bezieh. und mit Berücksicht des Fabrik- und Gewerbes im Östr. Kaiser-*

staate, herausgeg. von Steph. Edl. von Kees. Vienna, 1824. Die Douanen und Quarantaine-verfassung des Oestreich. Kaiserstaats, in ihrer gegenw. Gestalt von A. A. Kronegger. Vienna, 1824. Handbuch für Reisende in dem Oestreich. Kaiserstaate von R. E. von Jenny: to which Hormayr's Archiv, 1824, is a useful supplement. Gelehrten und Schriftsteller-Lexicon der Oestreich. Monarchie von D. Sartori, which begins in 1801, and forms a valuable addition to De Luca's Gelehrtes Oestreich.

AUTENRIETH, John Henry Ferdinand, chancellor of the university of Tübingen, and professor of medicine in the same institution, was born in the year 1772, and early evinced decided talent in the department of natural science. His imagination was lively, and his memory remarkably tenacious. After he had received his doctorate, he visited North America. During his travels in this part of the world, he was attacked by the yellow fever in a solitary place, at a distance from human assistance, and saved his life by bold and copious bleeding. After his return, he was appointed professor of medicine, particularly of anatomy and clinical medicine, at Tübingen. Here he labored zealously. His lectures were eloquent, and his attention to the sick unremitting. He published, likewise, several periodicals, partly alone, partly in connexion with Reil. The king of Wurtemberg appointed him chancellor of the university of Tübingen.

AUTEUIL; a small town of France, at the entrance of the wood of Boulogne, somewhat less than a mile from Paris. Men of literary reputation have often resided there. The country-seat of the poet Boileau is still shown there, where the *beaux esprits* of France often banqueted. On a certain time, heated with wine at a supper, the literati complained of the degeneracy of the age, and lamented their misfortune in having been born at such a period. All agreed to plunge into the neighboring Seine, and the flower of the French writers were already on their way to the river, when the thought struck Molière, that such an act, by such men, ought not to be performed in the darkness of night. The companions stopped, found he was in the right, and agreed to drown themselves at day-break, after drinking the remainder of their wine. The ingenious Andrieux brought this anecdote upon the stage in the piece *Molière avec ses Amis, ou le Souper à Auteuil*. While the physician Gendron was in possession of this house, he was visited by his friend Voltaire, who wrote the following not

very poetical inscription for it:—*C'est ici le vrai Parnasse des vrais enfans d'Apollon.*—*Sous le nom de Boileau ces lieux virent Horace; Esculape y paraît sous celui de Gendron.* Madame Helvetius, his widow, finally occupied it. Her evening parties here were celebrated. All who were distinguished in the walks of literature or of active life, were always welcome, whether French or foreigners. All were without restraint. Her society was therefore called *la société libre des égoïstes*. In 1798 or 1799, Bonaparte here became acquainted with several men of liberal minds, and often used to walk with the celebrated owner in her garden. She soon perceived his soaring ambition, and said to him one day with a smile, *Vous ne vous doutez pas combien on peut trouver de bonheur dans trois arpents de terre.*—The monuments of several illustrious men are to be seen in the churchyard at A.; among others, that of Nicolai, president of the *chambre des comptes*, and the chancellor d'Aguesseau, remarkable as a great civilian and advocate of the rights of men.

AUTHENTICS; a name applied, in the civil law, to an extract from the Novels (see *Corpus Juris*), by which a law of the code is either changed or entirely abolished. They were extracted by the first doctors of the law, in the middle ages, from a manuscript copy of the Novels (*liber authenticus*), put among the altered passages of the code, and have thus remained in the editions of the *Corpus Juris*. Some laws, moreover, of the emperors Frederic I and II of Germany have been introduced in this way.

AUTO DA FÈ. (See *Inquisition*.)

AUTOCHTHONES (from the Greek) signifies men produced from the ground which they inhabit. Several ancient nations assumed this name, to indicate the antiquity of their origin; e. g. the Athenians.

AUTOCRATOR (from Greek *αὐτός*, himself, and *κράτος*, power); a name given to the Athenian general, when, in particular cases, unlimited authority over the troops was intrusted to him, and he was not bound to give account of his proceedings. Thus Aristides was an autocrator in the battle of Platæa. *Πρεσβεις αὐτοκράτορας* were Athenian ambassadors with full powers, corresponding to our plenipotentiaries. In modern times, the word *autocrat* is used, in politics, for a ruler with absolute power. Thus the emperor of Russia is styled *autocrat* of all the Russias. Some writers on morals apply this term to

man, to represent his power over his own conduct.

AUTODIDACTI (Greek *αὐτὸς*, himself, and *διδάσκω*, I teach); those who have obtained knowledge and skill in any art or science, without the personal instruction of others.

AUTOGRAPHS (*Gr.*); manuscripts written by the author himself, in distinction from *copies*. They are more highly esteemed than the latter, not only as interesting relics, but also as more correct and free from faults than those copied by another hand. Some collections of autographs of famous men are very interesting.

AUTOMATON (from *Gr.* *αὐτὸματος*, spontaneous); a self-moving machine, without life. Machines of this kind are kept in motion by means of springs or weights. When they represent human figures, they are called *androides*; but clocks, watches, &c. are also automata. We find very early mention of them. Homer describes Vulcan fabricating tripods, which moved on living wheels, instinct with spirit. The celebrated statue of Memnon, which emitted musical sounds at sunrise, the walking statues of Dædalus, the flying dove of Archytas (q. v.), are instances of ancient skill in this respect. In modern times, friar Bacon (q. v.) constructed a brazen head which spoke. Regiomontanus (q. v.) made a flying eagle, and an iron fly, which, after making the tour of the room, returned to its master. Albertus Magnus (q. v.), in the 13th century, spent thirty years in constructing a human figure, which advanced to the door when any one knocked, opened it, and saluted the visitor. In the water-clock presented to Charlemagne by Haroun al Raschid, twelve doors in the dial opened respectively at the hour which they represented: they continued open till noon, when 12 knights issued out on horseback, paraded round the dial, and then, returning, shut themselves in again. Camus constructed an ingenious toy for Louis XIV. consisting of a carriage drawn by two horses, containing a little figure of a lady, with a coachman and attendants. The coachman smacked his whip; the horses moved their legs naturally; and, when the carriage arrived opposite to the king's seat, it stopped; the page stepped down, and opened the door; the lady alighted, and presented a petition to Louis.—The flute-player, the tambour-player, and the wonderful duck of Vaucanson (q. v.), are celebrated for the astonishing ingenuity displayed in their construction. The two brothers Droz (q. v.) have executed some admirable works of the kind. One

of them is a child, sitting at a desk, who dips his pen into the ink, shakes it, and writes, in French, whatever is dictated to him. This must be done, of course, by human intervention. A vase, presented to Bonaparte, when first consul, on being touched, exhibited a palm-tree, under which a shepherdess was spinning. The chess-player of von Kempelen (q. v.) has been supposed to be moved by a man concealed in the chest. The speaking machine of the same artist, the flute-player of Siegmeier, the trumpeters of Maelzel and Kaufmann, deserve mention among the later automata. One of the most ingenious automatical mechanists of the present day is the Swiss Maillardet. He constructed a female figure, which performs 18 tunes on the pianoforte; the bosom heaves, the eyes move, and the natural motions of the fingers are performed. The action of this machine continues an hour. Besides this figure, there is a magician, who answers any question taken from 20 medallions. The medallion selected is placed in a drawer, the magical books are gravely consulted, and the magician then strikes with his wand against a door, which opens, and displays an appropriate answer. His other automata are, a boy, which draws and writes; a little figure, a few inches in height, which dances to music produced in a glass case, in which it is enclosed; a humming-bird, which issues from a box, sings, and returns to the box again; a steel spider; a hissing serpent, &c. An engine has been made by Mr. Babbage capable of computing any table by the method of differences. The greater the number of differences, the more it will outstrip the most rapid calculator.

AUTOPSY (from Greek, *αὐτὸς*, himself, and *ὁψις*, sight); observation which one makes himself, in contradistinction from knowledge which we get from the accounts of others.

AUTUMN; that one of the seasons, which, in the northern temperate zone, begins when the sun, in its apparent descent to the southern hemisphere, touches the equator. The end of autumn is at the time of the sun's greatest south declination, or when he enters Capricorn. According to our computation of time, the beginning of autumn is Sept. 23, when, for the second time in the year, the days and nights are equal; and the end is Dec. 21, at the time of the shortest day. The autumn of the southern hemisphere takes place at the time of our spring. From this astronomical autumn the physical or

popular autumn differs according to the climate.—*Autumnal equinox*. (See *Equinox*.)—*Autumnal point* is called, by astronomers, that point where the equator cuts the ecliptic: the sun reaches it Sept. 23. It is said to be at the beginning of Libra, and is continually marked so, notwithstanding the point has long since receded from this constellation, and is now near the stars of the left shoulder of Virgo. It is opposite to the vernal point; therefore its ascension amounts to 180°, and its longitude also to as many, or six signs; its declination and latitude = 0.

AUVERGNE; a ci-devant province of France, which took its name from the ancient inhabitants, called *Averni*. It was surrounded by Velay and Forez, Limousin, Bourbonnais, Berry, Rouergue and Gevaudan, in the heart of France. Upper and Lower Auvergne contained together, on 500 square leagues, 800,000 inhabitants. The mountains of Auvergne are among the most noted of France. The northern part is called *Puy de Dôme*; the southern, *Puy de Cantal*; while the centre is formed of the *Mont d'Or*. The revolution divided this province into three departments. (See *Department*.)—Auvergne was celebrated in the time of ancient Gaul, and has always remained a very important part of France.

AUVERNAS; a deep-colored wine, made of black raisins, so called at Orleans. It is not fit to drink until a year old, but, if kept two or three years, becomes excellent.

AVA, or AUNGWA; a town in Asia, formerly the capital of Ava, or Birmah, on the Irrawaddy, 4 miles W. S. W. of Ummerapoora, 500 miles E. Calcutta; lon. 95° 58' E.; lat. 21° 51' N. It was divided into the upper and lower city; both fortified. The lower was about four miles in circumference, protected by a wall 30 feet high, with a deep and broad ditch; an embankment of earth supports the wall within. The upper town, which may be called the *citadel*, does not exceed a mile in circumference, and is much stronger and more compact than the other. The walls are now mouldering, and a great part of the timber of which the houses were built has been carried away to be used in a new town, called *Ummerapoora*. Numerous temples are falling, and the few houses built of brick become the abode of bats. In the temple of Logathero Praw is still to be seen a gigantic image of Godama, of marble. The height of the idol, from the top of the head to the pedestal on which it sits, is

nearly 24 feet; the head is eight feet in diameter, and across the breast it measures 10 feet. The Birmans assert that it is composed of one entire block of marble; nor can any junction be perceived. (For the country of Ava, see *Birmah*.) A short time ago, Mr. Crawford's Embassy to Ava, one vol., 4to., was advertised in the London papers as on the eve of appearance, which must contain much valuable information.

AVA-AVA; a plant so called by the inhabitants of Otaheite, who make an intoxicating juice out of it. Their chiefs vie with each other in drinking the greatest number of draughts, as the German students do in drinking beer.

AVADONTAS; a sect of Bramins, who, in austerity, surpass all the rest. They even reject the earthen vessels to hold provisions, and the stick to lean on—luxuries which the other sects allow themselves. Some Avadontas go perfectly naked: when hungry, they beg for something to eat: others go to the holy rivers, and there expect the peasants to feed them.

AVAI, or BAHHREIN; the largest of the Bahhrein islands in the gulf of Persia, 30 miles in length, and 12 wide, where it is broadest. Besides the fortified town of Bahhrein, it contains some poor villages. Lon. 48° 4' E.; lat. 26° 36' N.

AVALANCHES (in German, *Lavinen*, or *Lauvinen*); large masses of snow, which roll down from the mountains, causing great damage by their fall. There are three kinds. The *wind* or *dust avalanches* are so called because they are occasioned by the wind, which carries along the fresh fallen snow, and throws it, in the form of dust, into the valleys. The rapidity with which they come would render this kind the most dangerous of all, were it not for their great lightness, which renders it easy to extricate one's self from them. There have been instances of people remaining 24 hours under such avalanches without being suffocated. The second kind are called *mountain snow*, *hail* or *thunder avalanches* (*Schrund-Lavinen*). These are not blown off by the wind, but fall by their own weight, bringing down with them all the ground on which they lie, together with the trees, rocks, &c., which are there. They generally fall in the spring, when the increasing warmth has rendered the snow more damp and heavy. Their fall makes mountain and valley tremble, and is accompanied with a noise like thunder. The third kind, *earth avalanches*, or *land-*

slips, occur when the soil has been weakened by long-continued and deep-penetrating rains, when it slides down into the valleys, with all the houses, trees and entire forests which stand thereon, and causes the most horrible destruction.

AVANTURINE. (See *Quartz*.)

AVANT-LA-LETTRE (*French*; before the letter). It is customary to strike off from a copper-plate a number of impressions before the name, dedication, or any other words are cut under the engraving; and, as these impressions are of course the best, they are distinguished in Europe by the name *avant-la-lettre*, and bear always a higher price than the common impressions. Some *avant-la-lettre* are extremely dear. (See *Proof Impression*.)

AVARES; a nation, the remains of the Scheu-Schen, driven from their country by the Turks. They came, 100 years later than the Bulgarians, to the regions around the Don, the Caspian sea and the Wolga. A part remained in Circassia, where they still exist; another portion advanced to the Danube in 555, and settled in Dacia, served in Justinian's army, aided the Lombards in destroying the kingdom of the Gepidæ, and gradually conquered (especially under the powerful khan Bajan, in 582) the region of Pannonia. Under his successors, they made themselves masters of Dalmatia, pressed into Thuringia and Italy, where they fought with the Franks and Lombards, and extended their dominion over the Selavonians dwelling on the Danube, and farther north, as well as over the Bulgarians, on the Black sea. But they were soon divided, and lost Dalmatia in 640. Limited to Pannonia, they were at length overcome by Charlemagne, 796, and expelled from Moravia and Petschenegern. After 827, they disappear from history.

AVATÁR, in Hindoo mythology; an incarnation of the Deity. Innumerable incarnations have taken place, according to the Hindoos, but ten are peculiarly distinguished, and four of them are the subjects of *Purânas*, or sacred poems. These ten are the incarnations of Vishnú, the supreme God. The Matsya avatár was the descent of the Deity in the form of a fish; Kachyapa, or Kúrma, in that of a tortoise; Varáha, as a boar; Nara-singha, as a monster, half man, half lion; Vâmana, as a dwarf; Parasú-Râma, as the son of Jamadagni. All these took place in the *Satya Yuga*, or golden age. The others are more recent. The seventh incarnation is called *Râma-chandra avatár*, the descent of Vishnu to destroy a giant.

Their contests are the subject of the celebrated epic called the *Râmâyana*. The eighth avatár, called *Bala-Râma*, was in order to chastise other giants; the ninth, Buddh'ha, had a similar object. The Kalki, or tenth avatár, is yet to come, at the end of the *Kali Yuga*, or the iron age. (See *Indian Mythology*.)

AVELLINO (*Furca Caudina*); a passage lying between a city of the same name (25 miles N. E. from Naples) and Benevento, in the valley Di Gargano. A Roman army, having entered this pass with its rear exposed, was surrounded by the Samnites, who better understood mountain warfare, and, having laid down its arms, was sent under the yoke, like slaves, B.C. 321. The surrounding country yields the mountain productions of the south (which often serve the frugal peasants for bread), sweet chestnuts and walnuts on the north side of the mountains, where they are protected against night frosts and too early blossoming. The gloomily-built city Avellino, with 11,300 inhabitants, in the Principato Ultra, contains manufactories of macaroni, in which mountain-maize is used with chestnuts, &c. They belong to the princes Caraccioli, who have established a granary there for their vassals, and derive considerable revenues from the profitable business of dyeing, which is favored by the soft water of the surrounding country.

AVE MARIA, also AVE MARY, among the Catholics; the beginning of a prayer to the holy Virgin, whence the whole prayer is called *Ave Maria*. *Ave*, in Latin, means *hail*. *Ave, Maria!* is *Hail, Mary!* It is the beginning of the salutation which the angel addressed to the Virgin, when he announced to her that she should be the mother of the Savior (Luke i. 28. *Ave, gratia plena: Dominus tecum; benedicta tu in mulieribus*). The name *Ave Maria* is also given to those little balls in rosaries, each of which denotes a prayer, called *Ave Maria* (see *Rosary*); while the larger balls denote a *Pater-noster*. As, in Italy, a bell tolls at sun-down, which admonishes the people to address their prayers to the Queen of heaven, the close of the 24th hour, which, according to the Italian division of time, coincides always with sun-down, is called *Ave Maria*; and it is usual to say, *at Ave Maria, half past Ave Maria, &c.*, instead of *at 24 o'clock, half past 24, &c.*

AVENTINE, John (properly, *Thurmayer*), a historian, born at Abensberg, in Bavaria, in 1477, studied at Ingoldstadt and at Paris, and afterwards gave lectures at

Cracow and Ingoldstadt. In 1512, he was appointed tutor to two Bavarian princes, with one of whom he visited foreign countries. In 1517, he was appointed Bavarian historiographer, and wrote his famous *Annales Bojorum* (last edition by Gundling, Leipsic, 1710, folio), and his *Bavarian Chronicle*, both standard works for German history. His *Rudimenta Grammaticæ Latinæ* were published in 1512, and contributed much to advance the study of philology in Germany. He died Jan. 9, 1534.

AVENZOAR, or BEN ZOHR; an Arabian physician of the 12th century, born at Seville, in Spain, where his father practised medicine. He became eminent in his profession, travelled much, and passed through many adventures, among which was a long imprisonment at Seville. He had the care of an hospital, and composed a work entitled *Al Theiser*, containing a compendium of medical practice, and including many facts and observations not found in preceding writers, which were probably the result of his own experience. He died at Morocco, in 1169. The report of his having lived to the age of 135 is probably an error, arising from his having been confounded with his son, of the same name and profession, who lived at Morocco, and was the author of a treatise on the regimen of health.

AVERAGE, common, customary, or petty. In case of shipments of goods, the bills of lading often contain a stipulation that the shipper shall, besides a certain rate or amount of freight-money, also pay "primage and average." The word *average*, in this place, originally denoted several petty charges, such as towage, beaconage, &c., which are to be borne by the ship, freight and cargo, the kind and amount of which are very various, being determined by the marine ordinances of some countries, and, in others, by the usage of particular ports. There is often a great variety in the usages at the different ports of the same country in this respect. But the practice has come very much into use in Great Britain, and is general in the United States, to allow a certain rate per cent. on the amount of the freight for primage and average, where the bill of lading provides for the payment of these. The printed form of bills of lading usually contains the words *primage and average*, with a blank space, so that, when filled up, it reads either *with* or *without* primage and average, according to the agreement of the parties. The laws of the United States have not hitherto

regulated the amount of these charges.—Average, general or gross, consists of expenses incurred, sacrifices made, or damage sustained, for the common benefit of ship, freight and cargo, and comprehends jetson (the loss sustained by throwing overboard a part of the cargo, or of the provisions, tackle or furniture of the ship, for the general safety), or the cutting away of a mast, and also ransom paid to pirates, compromise with captors (if permitted by the laws), the damage occasioned by purposely running the vessel on shore, and, by the usage of some countries, the expense of getting a stranded vessel afloat, though it was accidentally stranded, and the expenses of delaying the voyage to seek a port to refit. The expenses and damage that are the subjects of contribution in general average, must be divided among all the parties to whom the ship, freight and cargo belong, in the proportion of their several interests. Contribution for jetson was provided for in the maritime laws of Rhodes, and thence adopted into the Roman code.—Average, particular, is the loss, expense and damage sustained on a ship, freight or cargo, which is to be borne by the party to whom the interest belongs, without any claim upon the other interests for contribution, and, in general, comprehends loss or damage that happens accidentally, and is not incurred voluntarily and purposely. It is also called *partial loss*, which description is likewise applied to a loss of only a part of the value of the interest at risk, in distinction from a *total loss*.

AVERNUS; a lake in the kingdom of Naples, between ancient Cuma and Puteoli. It is circular, in some places 180 feet deep, and surrounded by hills of a moderate height, which used to be covered with immense woods, so that gloom and darkness surrounded the lake, and accumulated effluvia filled the air with contagion. These woods no longer stand, but the regions about the lake are still unhealthy. In ancient times, a savage people fled hither, who only ventured out by night. Their conduct struck terror into the neighboring people, whose stories gave rise to the fable of the Cimmerians, who lived in perpetual darkness; and the idea arose, that the dead were here called up from the infernal world. Homer makes this lake the entrance to hell, and describes the visit of Ulysses to it. Virgil has followed in his steps. Afterwards, certain priests also took up their residence at this lake, who dealt in conjurations, exorcised spirits, &c., and carried on

their occupation only by night. Hence this wood became the grove of Hecate.

AVERROES (corrupted from *Ebn* or *Ibn Rushd*), the most renowned of the Arabian philosophers, and instructor of Moses Maimonides, was born at Cordova, in Spain. His father, chief magistrate there, instructed him in the Mohammedan laws, and appointed Tophail to teach him theology and philosophy. His talents and knowledge procured him the succession to his father's office. The king of Morocco appointed him *cadi* in the province of Mauritania. But his success was envied, and he was accused of rejecting the established religion, and, in consequence, deprived of his offices, and banished to Spain. He returned to Cordova, where he was assisted by his scholar Maimonides; but was soon persecuted there, also, and fled to Fez. Here he was condemned, by a spiritual court, to recant, and undergo a public penance. Upon this, he went back to his own country, where the caliph Almansor, after a time, restored him to his dignities. He died, after an active life, at Morocco, A. D. 1217 or 1225. A. regarded Aristotle as the greatest of all philosophers, and explained his writings, with only a slight deviation from his views. The Alexandrian doctrines, also, had much influence upon him. Against the orthodox Arabians, particularly against Algazal, he set himself up as a defender of philosophy on rational principles. He was called, among the Arabians, by way of eminence, *the Interpreter* (of Aristotle). They adhered very closely to his translation of Aristotle, made from the Syriac. He wrote, also, a compendium of physic, called *Colliget*, or *Universal*, and many treatises in theology, philosophy, jurisprudence and medicine.

AVESNES, or **AVENNES**; one of those many fortresses which protect France on the side of Germany, and which mostly originated under the restless Louis XIV. It was also one of the fortresses kept by the allies by the terms of the peace of 1815. Lon. 4° E.; lat. 50° 7' N.

AVEYRON, département de l'; a French department in the former Guyenne and Garogne. (See *Département*.)

AVICENNA, or **EBN-SINA**, an Arabian philosopher and physician, was born at Assena, near Bochara, A. D. 980. He possessed a ready genius and a strong memory, and, after going through a course of study with various masters, became a pupil at the school of Bagdad, where he exhibited indefatigable industry and

no inconsiderable portion of fanaticism. According to his own account, he read the metaphysics of Aristotle 40 times without understanding them. He completed his studies at the early age of 18, and began to practise as a physician. He soon acquired a degree of reputation which reached the ears of the various Eastern princes, all of whom were desirous of retaining him in their service; but he finally went into that of the sultan Nedjmeddevle, who appointed him his physician and grand vizier. His undue love of pleasure, however, soon made him lose his post and his master's favor; and the remainder of his life was spent in great adversity, as he was charged with the crime of heresy, in addition to other accusations. He died at Hamadan, in abject circumstances, A. D. 1036, aged 58. A. left many writings, mostly commentaries on Aristotle. They consist of 20 books on the Utility of the Sciences; the Heads of Logic; and various pieces in metaphysics and morals. Of his medical works, the principal is called *Canon Medicinæ*, which is thought very lightly of by Haller and Freind. His works were printed in the original Arabic, at Rome, in 1497, more than one Latin version of which has been translated, the latest being that of Vopucius Fortunatus, (Louvain, 1651.)

AVIENUS, Rufus Festus; a Latin poet of the 4th century. The works attributed to him are, Latin versions of the *Phænomena* of Aratus, and *Periegesis* of Dionysius, &c. Some of these productions still remain, and show him to have been a tolerable versifier. The best edition of his works is that of Cannegetier, 1731. Very little is known of his history.

AVIGNON, chief city of the department of Vaucluse, in the south-eastern part of France, on the Rhone, with narrow and crooked streets, contains a great number of churches and sacred buildings, among which is the church of the Franciscans; several scientific institutions, and among them an atheneum and a medical library; 2800 houses and 24,000 inhabitants; respectable silk manufactories, silk-dyeing establishments, and other works. The country is agreeable, and extremely fruitful in corn, wine, olives, the Avignon berry (of a yellow color), kermes, sumach, and the richest fruits of the south. Here Petrarch lived several years: here he saw his Laura, who formed the subject of his most beautiful verses, and whose tomb is still to be found in the Franciscan church. The fountain of Vaucluse is five leagues

from A. This city and its district, in the middle ages, was a county which the popes, who had already received the county of Venaissin, in 1273, from king Philip the Bold, as a present, bought of Joanna, queen of Sicily and countess of Provence, in 1348, for 80,000 florins. Joanna had fled to Provence because Louis I, king of Hungary, wished to take revenge on her for the death of his brother, her husband, whom she had caused to be murdered. The papal government retained the two provinces, under the rule of a vice-legate, till 1790, when, after many stormy scenes, the city, with its district, was annexed to the French republic, and, in 1791, was formally united with it. At the peace of Tolentino, the pope renounced A. and Venaissin. Louis XIV and Louis XV several times took possession of A., when offended with the popes. From 1305 to 1377, seven popes in succession fixed their residence in this city. The Catholic historians commonly call this period the *Babylonish captivity of the popes*. Near A. are found many Roman antiquities.

AVOIRDUPOIS (French, *avoir du pois*); a kind of weight, of which a pound contains 16 ounces, and is in proportion to a pound troy as 17 to 14. All the larger and coarser commodities are weighed by avoirdupois weight. The avoirdupois ounce is less than the troy ounce in the proportion of 72 to 79; though the pound, as we have said, is greater. (See *Measures*.)

AVON; the name of four rivers in England:—1. Rising in Leicestershire, runs S. W., and falls into the Severn at Tewksbury. Stratford-on-Avon, a town on this river, is the birth-place of Shakspeare. 2. In Monmouthshire. 3. In Wiltshire, enters the English channel at Christchurch bay, in Hampshire. 4. The Lower Avon, which rises near Tetbury, in Gloucestershire, and falls into the Severn N. W. of Bristol, being navigable as far as Bath.

AWARD. (See *Arbitration*.)

A-WEIGH; the state of the anchor when it is drawn out of the ground in a perpendicular direction.

AXEL. (See *Absalom*.)

AXIM; a part of the fertile territory of Abanta, on the Gold Coast. The Dutch have a fort here, called *fort Anthony*, situated on the most western promontory of cape Three Points. The Portuguese founded the first settlement here, but were driven from it by the Dutch, in 1642.—*Axim* is likewise the name of a

river which runs through the capital of this country, called, also, *Axim*.

AXINITE; a crystalized substance, found principally in Dauphiny, in France, and latterly in Cornwall, in the neighborhood of St. Just. The colors are generally a light violet-brown. Its name is derived from the general form of the crystals, the edges of which bear some resemblance to the edge of an axe.

AXIOM (principle); a universal proposition, which the understanding must perceive to be true as soon as it perceives the meaning of the words, though it cannot be proved, because it is impossible to make it plainer. It is therefore called a *self-evident truth*. To these propositions belong, indisputably, those in which the subject and predicate are either the same or are only expressed in different words, since we cannot think a thing is really different from itself: for instance, *A is A*; *Every quantity is like itself*; *A thing is like itself*; *A thing cannot, at the same time, be and not be*; &c. To axioms belong also propositions, of which the predicate expresses only some idea which enters necessarily into our conception of the subject. Such is the proposition, *A triangle has three sides*, because the subject, *triangle*, cannot be conceived otherwise than three-sided. All reasoning must start from axioms. There has been much dispute what proposition is to be regarded as absolutely first in all human knowledge. Some have considered as such the position, *It is impossible for a thing to be and not to be at the same time*; others, *Whatever is, is*; others, *Every thing either is or is not*; others, the principle of the sufficient reason, *We cannot regard any thing as true without proofs, or any thing false against established proofs*. All these positions are fundamental truths. They all have this in common, that we cannot help regulating our thoughts, in the judgment of truth, conformably to them. They are all necessarily believed to be true. Many principles, however, are esteemed, by one class of men, self-evident, which another will not admit. There can never, therefore, exist perfect uniformity in human reasoning. There is only one science, which starts from axioms acknowledged by all mankind, and which, therefore, is of a more general character than any other—viz. mathematics. But about some principles of every other science, which are generally considered axioms, great doubts have existed. Thus it is regarded as an axiom of moral philosophy, that *There exists a*

distinction, in the nature of things, between moral good and evil. This cannot be proved, but it is generally admitted; and all our social, political and religious relations are regulated by this principle; yet there have existed men of acute minds, who have disavowed this axiom altogether, and made interest the sole rule of conduct. Many of them lived in the time of Helvetius. (q. v.) It has always been a great question in philosophy, whether these axioms are *innate*, or *drawn from experience*.—Bacon calls *axiom* a general principle, obtained by experiment and observation, from which we may safely proceed to reason in all other instances; and Newton gives the name of *axiom* to the laws of motion, which, of course, are ascertained by the investigation of nature; he also terms *axioms* those general, experimental truths, or facts, which form the ground-work of the science of optics. Dugald Stewart thinks that, in this, and other instances, Newton followed Bacon's phraseology "too implicitly."

AXIS, in geometry; the straight line which divides the area of a curved figure (e. g., of a circle, ellipse, &c.) into two parts, similar and similarly situated, on both sides of the line. Further, a straight line, drawn from a point in the periphery through the centre of a sphere, is its axis; and a straight line drawn from the vertex of a cone through the centre of its base, is the axis of the cone.—*The axis of the world* is the imaginary line drawn through its two poles and its centre.

AXUM, **AXOMA**, **AXOMIS**, or **AKSUM**; a city in Tigre, a province of Abyssinia. Neither Herodotus nor Strabo mentions A., though, in the 1st century after Christ, it was repeatedly spoken of, and particularly after the time of Ptolemy, as the chief city of an important kingdom, which, through Adulis, was connected with Arabia and Ethiopia. At the time of the *periplus* of the Red sea, A. was the great depôt of the ivory trade. The importance of this city and its kings was first made known to us by a stone (*Axumitic marble*) with a Greek inscription, first explained by Salt, who discovered it, and afterwards by Buttmann and Niebuhr (*Museum der Alterthumswissenschaften*, v. Wolf und Buttmann, 2d vol., sec. 575). This inscription, like similar ones that have since come to us from that quarter, contains an account of the clemency of one Aizanas (a boasting king, who called himself a son of Mars) towards several inferior kings, whom he conquered. The interest in this inscription was

increased by the explanation which it afforded of the second half of the Adulian marble. (q. v.) A., the place where it was found, still exhibits many remains of its former greatness. Among its ruins are shown the royal throne and groups of obelisks, originally 55 in number, one of which Salt declared to be the most beautiful that he had seen. Cotton goods and the finest parchment are still manufactured here.

AYACUCHO, BATTLE OF. This engagement is one of the most celebrated in the history of South America, having been decisive of the independence of Upper and Lower Peru. For several months before this event, the Colombian auxiliary army, under general Sucre, and the royalist army, under the viceroy La Serna, had been moving in face of each other with various success, but, on the whole, to the disadvantage of the Colombians. Sucre and his men were anxious for battle; and at length La Serna determined to engage them on the plain of Ayacucho, Dec. 9, 1825. The royalist force consisted of 9,310 men, that of the patriots of 5,780 men. Generals Sucre (the commander in chief), La Mar, Cordova and Miller distinguished themselves on this occasion, and the battle terminated in the total defeat of La Serna, who was taken prisoner, with the loss of 1800 men in killed and wounded, and in the capitulation of Canterac, the second in command. Of the patriots, only 370 were killed. The intelligence of this splendid victory filled all Spanish America with rejoicings, as it effectually accomplished the delivery of Peru from the Spaniards. (See *Peru, Bolivia, Sucre*.)

AYCINENA, Mariano, became governor (*gefe supremo*) of the state of Guatemala, in the republic of Central America, in January 1827, after the murder of Cirilo Flores, the vice-chief, and the removal of the actual governor by president Arce. He is one of the most influential members of the Guatemaltecan party. (See *Central America*.)

AYESHA; daughter of Abubeker, the favorite wife of the Arabian prophet, though she bore him no child. After his death, she opposed the succession of Ali, raised an army against him, and was taken prisoner, but dismissed with that spirit of chivalry which had already arisen among the Arabians, and communicated itself afterwards to the Christians. She died in 677, it is said, 67 years old.

AZIMUTH of a star; the arc of the horizon comprehended between the merid-

ian of the observer and the vertical circle passing through the star. It is easterly, if the star is observed before, westerly, if after, and zero, if at, the time of culmination. It is usual to connect with the quadrant a graduated, horizontal circle, called the *azimuth circle*. The zero of its divisions is brought into the situation of the meridian, and we have immediately the azimuth of the star, whose height above the horizon is determined by the telescope of the quadrant.

AZINCOURT. (See *Agincourt*.)

AZOGA SHIPS (from the Spanish *azogue*, quicksilver) were those Spanish ships, commonly called the *quicksilver ships*, from their carrying mercury to the Spanish West Indies, to extract the silver from the mines of Mexico and Peru. They were prohibited from carrying any goods except for the king of Spain.

AZOPH, or AZOF; a small town and fortress in the Russian government of Ekaterinoslav, upon an island at the mouth of the Don, where it flows into the sea of Azoph. Lat. $46^{\circ} 53' N.$; lon. $39^{\circ} 14' E.$ It contains about 3000 inhabitants, and was, as late as 1774, given up entirely to the Russians by the Turks.—The *Sea of Azoph* is merely a bay of the Black sea, with which it is united by the straits of Caffa. In the middle ages, it was called *Mar de Zabacchi*, and, in ancient times, *Palus Mæotis*. Its principal port is Taganrock. Its fish are plentiful. On Sept. 5, 1799, a new volcanic island was thrown up. The sea is 210 miles in length, and about 50 broad. Lat. $45^{\circ} 20' - 47^{\circ} 20' N.$; lon. $34^{\circ} 30' - 39^{\circ} 30' E.$

AZORES (i. e., *Hawk islands*); a group of nine Portuguese islands in the Atlantic ocean, between Africa and America, extending from 36° to $39^{\circ} N.$ lat., and containing 1160 sq. miles. The inhabitants are of Portuguese origin, and governed by Portuguese laws. The country is volcanic and mountainous, but well-watered and uncommonly fruitful. The highest mountain, the peak of Pico, is 7016 feet high. The climate is warm and healthy, producing corn, wine, and various fruits. The inhabitants are engaged in grazing and fisheries, have some manufactures and a lively trade. There is no good harbor. The Portuguese discovered these islands, A. D. 1446, though the Dutch navigators had seen them earlier, and called them the *Flemish islands*. Their names are St. Michael, population 80,000; Tercera, 28,900; Pico, 20,900; St. George, 11,200; Fayal, 16,300; Santa Maria, 5000; Graciosa, 7400; Flores,

7100; and Corvo, 800. Angra, the chief city, on Tercera, contains 15,000 inhabitants. The total population of the Azores is estimated by some at more than 200,000.

AZOTE (from α , and $\zeta\omega$), life, because it is fatal to animal life; called also *nitrogen*, because one of the most important properties of its base is, that, in combination with oxygen, it composes nitric acid; a gas. Though incapable of supporting respiration or combustion, its presence seems to be necessary to dilute the oxygen, and thus diminish its activity. Atmospheric air is a mixture of oxygen and azote, in the proportion of 21 to 79 in volume. The specific gravity of azote is 0.9757, that of air being taken as unity. Its refractive power is 1.03408. The specific caloric of azote and the air, taken in equal volumes, is the same; taken by equal weights, that of azote is greater. Azote is procured by burning phosphorus in a receiver over mercury; the phosphorus unites with the oxygen, and the azote is set free: it still contains a small quantity of carbonic acid, which is separated by shaking the gas in a closed bottle, containing lime-water, from which the air has been exhausted. It is also evolved from decaying organized substances, and forms ammonia with their hydrogen when burnt. Azote has a feeble affinity for other substances; the number of mineral compounds into which it enters is, therefore, small.—Animal and vegetable substances differ from each other only in this, that the former contain azote, the latter are destitute of it.—Some chemists consider azote a compound of equal volumes of oxygen, and a base which they call *nitricum*.

AZYME, or AZYMUS (Greek, $\alpha\zeta\upsilon\mu\omicron\varsigma$, without ferment, unleavened); a term much used in the violent controversies between the Roman and Greek Catholics; the former of whom contend, that the bread, in the mass, ought to be *azymus*. The controversies on this important subject are of equal consequence with those between the German Lutherans and Calvinists, whether the Lord's prayer ought to begin *Our Father* or *Father of us*; or between some religious orders, whether the cowl ought to be pointed or round, &c., &c., &c.

AZYMITES. (See *Azyme*.)

AZZARA, don Joseph Nicholas, chevalier d', born, 1731, at Barbanales, in Arragon, early showed a strong inclination for the arts and sciences, which was increased by his connexion with the painter Mengs,

who had entered the service of the king of Spain. A. entered on the career of diplomacy, was sent to pope Clement XIII, as royal agent for ecclesiastical affairs, highly distinguished himself in this post, and always maintained a great influence in the most important negotiations between his country and the papal court. (See Dohm's *Memoirs of Joseph II. and Rome.*) In 1796, he was sent to the conqueror of Italy, to obtain his favor towards Rome. Bonaparte immediately conceived an esteem for him, and, after this meeting, A. always regarded him with

admiration. At that time, also, commenced his connexion with Joseph Bonaparte. He went soon after, in a diplomatic character, to Paris, where the agreeable society and reception which he met with compensated him for the loss of his old friends, of an elegant library, and a rich collection of paintings and antiques. He was subsequently recalled, banished to Barcelona, again sent ambassador to Paris, and again deprived of this important office. His feeble health at last gave way, and he died at Paris, Jan. 26, 1804.

B.

B; the second letter in all European alphabets, in Hebrew, and most other languages. It belongs to the mutes and the labials, and, as all labials are easy to be pronounced, *b* is one of the first letters which children learn to speak, after they utter *a*. The first syllable which they pronounce is, generally, *ba* or *pa*. The pronunciation of *b* differs from that of *v* only in this, that the lips are compressed a little more closely. The difference is so slight, that, in all original languages, a considerable period elapses before the two sounds cease to be used indifferently. In some languages, *b* continues to be pronounced *v*, under certain circumstances. In the Spanish, it has this sound between two vowels in the middle of a word, and, generally, when it occurs between a vowel preceding, and an *r* succeeding it. The modern Greeks pronounce *b* always *v*, and represent our sound of *b* by combining the two letters μ and π ; e. g., *Boston* they write Μπιστον. The languages of the American Indians have few perfect labials, and are, therefore, spoken with an open mouth, and scarcely any motion of the lips. Another letter, into which *b* is often changed, is *p*, which requires merely a stronger breathing, with the same motion of the lips. In one part of Saxony, the people use *p* and *b* indifferently, and, in another part, *b* is not used at all. Some languages regularly change *b* into *p*, under certain circumstances; as the Latin, when this letter occurs before *p*; thus *ob* is changed into *op* before *ponere* (*opponere*). The German pronounces *b*, at the end of

a word, invariably *p*.—*B* is often used as an abbreviation, and its most common meanings are *before* (as in B. C.), *bachelor* (as in B. A., B. D., B. L.). Among the Greeks and Hebrews, *B* signified 2; among the Romans, 300; with a dash over it, 3000; and with a sort of accent under it, 200. (See *Abbreviations.*)—In music, *b* is the designation of the seventh note in the natural diatonic scale of *c*, to which De Nevers, a French musician, in the beginning of the last century, is said to have first applied the syllable *si*. The ancients denoted by *b* the second interval in their musical scale, beginning with *a*—the only interval, with them, which had two chords differing half a note. The lower one was denoted by a small *b*, the higher one by a large *B*.

BAAL, BEL; a Babylonian or Phœnician god, the idea of whom has been very much obscured by time, and the imperfection of language. Some believe him to have been a man, the founder of Babylon; Herodotus calls him the son of Alcæus; others make him a Chaldean giant. From the traditions which history has transmitted to us, we might think him to have been an extraordinary man, who founded the kingdom of Babylon, and was afterwards deified. Some writers report of him, that he made the land fertile and habitable, connected rivers by canals, and surrounded Babylon with a wall. His son Ninus, the great conqueror, is said to have declared him a god after his death, and to have ordered that divine honors should be paid him. But his worship

was not limited to Babylon and Assyria; we find it among the Persians, Tyrians and others. Of the manner in which the god Baal was worshipped, we have but imperfect and contradictory statements. Amongst the sacrifices offered to him, the Bible mentions human victims, which, however, is, perhaps, a mere figurative expression, to denote the apostasy from Jehovah to Baal.—Besides, the name *Baal* or *Bel*, in several Oriental languages, signifies *lord*, and denotes the dignity of a ruler; e. g., when compounded with several proper names, as *Bel-shazar*, *Hannibal*.

BALBEK. (See *Balbek*.)

BAAL-ZEBUB. (See *Beelzebub*.)

BAAN, John van; a Dutch portrait painter, born in 1633, and died in 1702. He resided some time in England.

BABEL-MANDEL, or **BABELMANDEL** (literally, the *gate of affliction*; anciently, *Dira*, or *Diræ*); a narrow strait between the Indian ocean and the Red sea, formed by projecting points of Arabia in Asia, and Abyssinia in Africa. It is 15 miles wide. In the middle is an island, called *El Mandel*, or *Perim*, or *Mehim*. It is said to be about five miles in circumference, barren, and very thinly inhabited. Niebuhr, Bruce and lord Valentia give an account of these straits and this island.

BABER, or **BABOUR**, sultan; the founder of the Mogul dynasty in Hindostan. He was descended from the great Tartar prince Timour, usually called *Tamerlane*, and was sovereign of Cabul. He attempted the conquest of Samarcand, and, while engaged in an expedition against it, was deprived of his hereditary dominions, and reduced to the utmost extremities, by an invasion of the Usbecks. After more than once recovering his fortunes, when they seemed to be almost desperate, he invaded Hindostan, and, in 1525, overthrew and killed sultan Ibrahim, the last Hindoo emperor of the Patan or Afghan race. Another emperor was chosen to oppose B., who, however, overcame the combination against him, and firmly established himself on the throne. After an active and glorious reign, he died in 1530. Ferishta, the Persian historian of Hindostan, informs us that this prince wrote an elegant history of his own life. He is said to have been of a voluptuous disposition; and he is noted as the first Indian sovereign who had the road, by which he travelled, measured after him. (See *Dow's History of Hindostan*.)

BABEUF, Francis Noel; one of the numerous individuals, of more zeal than

judgment, who distinguished themselves during the French revolution. He was born at St. Quentin, and left without resources, at the age of 16, by the death of his father. Having been unjustly imprisoned in the citadel of Arras for forgery, he made his escape, and went to Paris, where, in concealment, he published a pamphlet against the Jacobins, entitled *Du Système de Dépopulation, ou la Vie et les Crimes de Carrier*, 8vo. Soon after, he started a democratic journal, called *Le Tribun du Peuple, par Gracchus Babeuf*. He then wrote with great severity against the Jacobins, and even addressed severe reproaches to the national representatives. After the fall of Robespierre, to which he powerfully contributed, he openly attacked the terrorists, and, after the organization of the new government, in 1795, he resumed his journal, and advocated in it the most democratic principles, with such energy as to bring on him the vengeance of the ruling powers. He was accused of a conspiracy against the directorial government, tried at Vendome, with some accomplices, declared guilty, and condemned to death, in 1797. He endeavored to destroy himself, but was prevented, and fell by the hand of the public executioner. The debates on his trial were published in 6 vols., 8vo.

BABINGTON, Anthony; a Catholic gentleman of Derbyshire, who associated with others of his own persuasion to assassinate queen Elizabeth, and deliver Mary, queen of Scots. The plot being discovered by Walsingham, the conspirators were executed in 1586. Babington seems to have been principally induced to this rash conspiracy by a romantic hope that Mary, in gratitude, would accept of him as a husband.

BABOON; a common name applied to a genus of monkeys, with the exception of one species peculiar to Africa. This genus is the *cynocephalus*, or dog-head monkies of modern naturalists, and is divided into two sub-genera, well characterized by the difference of their tails: the first is called *baboon*, having the tail longer than, or nearly as long as, the body, and continuous with the dorsal spine; the second, named *mandrill*, is characterized by a short, slender and pig-like tail, placed perpendicular to the dorsal spine. There are four species of the first and two of the second sub-genus. The most striking peculiarity of the whole is the elongated, dog-like head, with its flat, compressed cheeks, projecting and strong teeth, and forehead depressed below the level of the

superior margins of the orbits. Notwithstanding this close approximation to the shape of the dog's head, the form and position of the eyes, combined with the similarity of the arms and hands, give to these creatures a resemblance to humanity as striking as it is disgusting. The whole aspect of the animal impresses the beholder with an idea of great physical strength, united with a temper at once incorrigibly vicious and brutally ferocious. Such, at least, is the true character of the baboons capable of being ruled by the severest treatment. It is only while coercion is continued, that they can be even partially restrained: left to their own will, their savage nature immediately resumes its sway, and their actions are gratuitously cruel, destructive and disgusting. The phrenologist finds ample evidence, in the conformity of the character of these creatures with their cerebral development, of the correctness of his doctrine.—In the vicinity of the cape of Good Hope, where a species of baboon (*C. sphinx*) is found in considerable numbers, the inhabitants chase them with dogs and guns, in order to destroy them, on account of the ravages they commit in the fields and gardens. They make a very obstinate and effectual resistance to the dogs, and only retreat before men when armed with guns. They feed exclusively on fruits, seeds, and other vegetable matter, which shows how independent their disposition is of every thing but peculiar organization. Nothing can exceed the lasciviousness of these disagreeable creatures, which, when in captivity, indulge their lubricity in the most disgusting manner—a circumstance which renders it unsafe for females to visit exhibitions of animals where these beasts form a part of the number. If a woman be in presence of a baboon, the slightest attention paid her by a man, the taking her by the hand, or exhibiting any approach to caresses, throws the animal into a paroxysm of rage, and, no doubt, could he escape, he would inflict severe punishment on the offender.—The baboon can never be called *tamed*, how long soever his confinement may have endured. As he advances in age, all his worst qualities become more strongly expressed, and his savage disposition grows exceedingly dangerous, and slight causes provoke him to terrible fury. For such reasons, these animals should not be allowed to form a part of a caravan for general exhibition, without being carefully secured and well watched.

BABOUR. (See *Baber*.)

BABRIAS, or BABRIUS; a Greek poet,

supposed to have lived a short time before the beginning of the Christian era. He turned the fables of Æsop into verse, of which work some fragments have been published in *Fabulæ Gr. Lat., cum Notis Neveleti*, Frankfort, 1660, 8vo. Mr. Tyrwhitt printed, in 1776, *Dissertatio de Babrio, Fabularum Æsopæarum Scriptore*, containing all the information he could collect concerning this ancient writer.

BABYLONIA (now, *Irak Arabi*); an old Asiatic empire, bounded E. by Susiana, S. by the Persian gulf and Chaldea, W. by Arabia Deserta, and N. by Media and Armenia, or Mesopotamia. As the Chaldeans had possession of the whole country, it was also included under the name *Chaldea*. It is a level region, watered by two great rivers, the Euphrates, or Frat, and the Tigris. The former stream, which is almost always on a level with its low banks, overflows on the slightest occasion. It inundates the whole country every spring, when it is swollen by the waters from the Armenian mountains, and fertilizes it as the Nile does Egypt. Nature has supplied the want of wood and stone by clay, which, when dried in the sun, or burnt in furnaces, makes durable bricks, that even to the present time have resisted the effects of the climate in the ruins of the ancient city. For mortar, the inhabitants use bitumen, of which there are copious springs. The extent of the old capital, Babylon, situated on the Euphrates, according to the representations of the ancients, approaches the miraculous. The walls are said to have been 350 feet high, and 87 feet thick; to have had 250 towers, and 100 gates of brass, and to have been more than 60 miles in circuit. The temple of Belus and the hanging gardens were among the greatest curiosities of this gigantic city, of which almost every trace is destroyed. The Babylonians, one of the most ancient nations of the earth, of the Semitic race, as appears by their language, which is an Aramaic or Syriac dialect, were a distinct people, with settled abodes, and a certain degree of scientific cultivation, as early as 2000 B. C. The Mosaic account mentions Nimrod as the founder of the first empire in Babylonia. The later Greeks describe Belus, Ninus and Semiramis as great conquerors. (See *Assyria*.) B. C. 630, the Chaldeans, a wandering people, under Nabopolassar, descended from Taurus and Caucasus, conquered Western Asia, destroyed Jerusalem under Nebuchadnezzar (588), subjected Tyre and Phœnicia, and found-

ed an empire which extended to the shores of the Mediterranean. Babylon, which, even earlier, was the seat of scientific, particularly of astronomical and astrological knowledge, was the capital of this empire. Commerce and industry introduced wealth, and this produced a love of luxury and magnificence. The manufactures of linen, cotton and silk were especially celebrated. Learning was confined to the priests, who are mentioned under the name of *Chaldeans*. Under Nabonidas, the empire declined, until Cyrus put an end to it by destroying the capital, in 536, and united Babylonia with Persia. It shared the fate of Persia until A. D. 640, when it was conquered by the followers of Mohammed, who built Bagdad on the Tigris in 762. This became the seat of the caliphs, who were expelled, in 1258, by Holagou, a prince of the Tartars. In 1534, Bagdad fell into the power of the Turkish victors, from whom Shah Abbas took it in 1613. It came, with Babylonia, anew under the dominion of the Turks, in 1639, who possess it at the present day.—Of the ruins of Babylon, which engage the attention of travellers in modern times, the most correct accounts are contained in the Memoir on the Ruins of Babylon, by Claude James Rich, resident of the East India company at the court of the pacha of Bagdad (3d edition, with copperplates, London, 1818). Rich, Niebuhr and Rennel suppose ancient Babylon to have been situated in the Turkish pachalic Bagdad, near the village Hill or Hella, which lies in 32° 28' N. lat., on the eastern bank of the Euphrates, and contains 6—7000 inhabitants. In the neighborhood are a number of old, ruined canals. Idols, vessels, intaglios, &c., and even ruins of large buildings, are still seen there. Della Valle and Rennel think one of them to be the tower of Belus. The greatest height of this is 141 feet, and the sides are directed to the four cardinal points. Another ruin of a castle contains many caves and passages. A third, a huge oblong edifice, on the western side of the Euphrates, is called by the Arabians *Birs Nimrud*. This was first described by Rich. He takes it for the tower of Belus, the top of which was to serve as an observatory. Of this opinion is also Ker Porter. Grotefend has done much towards deciphering the arrow-headed inscriptions. The material is entirely brick, as described by Herodotus. Of the old city walls not a trace has been discovered. As to the rest, these ruins

bear the character of grandeur, but not of beauty. The ornaments still existing are clumsy and tasteless.

BACCALAUREUS (anciently, *baccalarius*, bachelor) denoted, in the middle ages, 1. a warrior of lower rank (*bachelier*), under a knight banneret; 2. transferred to the clergy, it signified a canon of the lowest rank; 3. a candidate who had passed three academical courses and examinations, and was himself entitled to give lectures without being reckoned among the independent lecturers. This was, consequently, the lowest academical degree. After the first examination, he was called *baccalaureus simplex*; after the second (or Biblical), *baccalaureus currens*; after the third (philosophical and dogmatical), *baccalaureus formatus*. The *baccalaureus* could now become a licentiate, i. e., acquire all the rights of a teacher. In France, this institution remained until the revolution. In England, it is even now in existence, and the *baccalaureus*, created according to the regular forms, is called a *formed bachelor*; one who is created by an extraordinary diploma, a *current bachelor*.—In the universities of Cambridge and Oxford, a bachelor of arts must keep a certain number of terms; and a bachelor of divinity must be a master of arts. There are, also, at these universities, bachelors of laws, of medicine and of music.—In France, since the 1st of October, 1822, he who wishes to become *baccalaureus* must have attended, at least one year, the philosophical course, in one of the royal colleges, institutes of education or divinity schools, in which philosophy is taught. Those candidates, likewise, who have been educated and instructed in the house of their father, of their brother, or uncle, can be admitted to the *baccalauréat des lettres*. The candidates for the academical degree of *baccalaureus* are examined in all that is taught in the higher classes of the royal colleges, that is, in Greek and Latin authors, rhetoric, history, philosophy, the elements of mathematics and natural history.—*Bachelor of arts* is a degree commonly conferred, in the U. States, on students who have completed the course of study established at the several colleges in this country.

BACCHANALIA. (See *Bacchus* and *Orgies*.)

BACCHUS. (See *Rhythm*.)

BACCHUS (in Greek, *Διόνυσος*); the god of wine, born of a mortal mother, yet one of the immortal gods. His history is one of the most perplexed in the Greek mythology. Semele was pregnant with him

by Jupiter. Before his birth, however, she became a victim of the craft of Juno. Jupiter hastened to save the unborn fruit of his embrace, and concealed it, till mature, in his own thigh. He afterwards committed the infant to Mercury, who carried him to Ino and Athamas, and finally to the nymphs of Nysa, in India, where he grew and prospered. His teacher was Silenus, afterwards his constant companion. In the vales of Nysa, Bacchus invented the preparation of a beverage from grapes, and taught the planting of vines. To spread the knowledge of his invention, he travelled over almost the whole known world, and received in every quarter divine honors. Drawn by lions (some say panthers, tigers or lynxes), he began his march, which resembled a triumphal pomp, with a great suite of men and women, Sileni, Satyrs, and Mænades. Inspired by the presence of the god, rejoicing, brandishing the thyrsus, and crowned with vines and ivy, they danced around him, shouting, "*Evoe! Eleleus!*" over hill and valley, accompanied by the tones of Phrygian flutes and timbrels. The Thebans would not acknowledge his divinity, and Pentheus armed himself against him. Bacchus resolved to punish the crime, and inspired the women with a fury which drove them from their dwellings, to wander on mount Cithæron. Pentheus himself was torn in pieces by his own mother and her sisters, to whom he appeared a wild beast. He punished the daughters of Mynias, who derided his feasts, with frenzy and transformation. At Naxos, some Tuscan sailors attempted to carry him off to Italy, supposing him, from his purple robe, to be the son of a king. They fettered him; but the fetters fell off, vines and ivy entwined the vessel, and kept it fixed in the midst of the sea: the god transformed himself to a lion, and the seamen, seized with madness, leaped into the waves, where they were changed into dolphins. On the other hand, he rewarded such as received him hospitably, and rendered him worship; as, for instance, Midas (q. v.), who restored to him the faithful Silenus.—His love was shared by several; but Ariadne, whom he found deserted upon Naxos, alone was elevated to the dignity of a wife, and became a sharer of his immortality. To confer the same favor on his mother, Semele, he descended into the realms of Pluto, and conducted her to Olympus, where she was henceforth called *Thyone*. In the dreadful war with the giants, he fought heroically,

and saved the gods from impending ruin. According to some, he escaped the dangers which surrounded him in this conflict, by transforming himself into a lion. During the rejoicings for victory, Jupiter joyfully cried to him, "*Evan, evoe!*" (Well done, my son!) with which words Bacchus was afterwards usually saluted. We find him represented with the round, soft and graceful form of a maiden, rather than with that of a young man. An ornament peculiar to him is the tiara. His long, waving hair is knitted behind in a knot, and wreathed with sprigs of ivy and vine-leaves. He is usually naked; sometimes he has an ample mantle hung negligently round his shoulders; sometimes a fawn-skin hangs across his breast. The bearded Bacchus is properly of Indian or Egyptian origin. The golden horns (the symbol of invincible force) upon his head were hidden by the Greek sculptors, or shown but little. The feasts consecrated to Bacchus were termed *Bacchanalia*, *Dionysia*, or, in general, *Orgia*. They were celebrated with particular solemnity in Athens, where the years were universally reckoned by them. During their continuance, the least violence towards a citizen was a capital crime. The great *Dionysia* were celebrated in spring. The most important part of the celebration was a procession, representing the triumph of Bacchus. This was composed of the above-mentioned train of Bacchantes, of both sexes, who, inspired by real or feigned intoxication, wandered about, rioting and dancing, and gave themselves up to the most extravagant licentiousness. They were masked, clothed in fawn-skins, crowned with ivy, and bore in their hands drinking cups and spears entwined with ivy (*thyrsi*). Amidst this mad crowd marched, in beautiful order, the delegated bodies of the *Phratia* (corporations of citizens). They bore upon their heads consecrated baskets, which contained first-fruits of every kind, cakes of different shape, and various mysterious symbols. This procession was usually in the night-time. The day was devoted to spectacles and other recreations. At a very early hour, they went to the theatre of Bacchus, where musical or dramatical performances were exhibited. All over Athens reigned licentiousness and revelry. These feasts passed from the Greeks to the Romans, who celebrated them with still greater dissoluteness, till the senate abolished them, B. C. 187. (On the worship of Bacchus, the *Dionysiaca*, &c., see the prize essay of P. N. Rolle, *Recherches*

sur le Culte de Bacchus, Paris, 1824, 3 vols.)

BACCHYLIDES; born in Iulis, a city of the island Cos; the last of the 10 great lyric poets of Greece, whom the Alexandrine canon declared classical. The nephew of Simonides, and a contemporary of Pindar, he is placed as a poet beside them. Hiero, at whose court he lived, esteemed him very highly, and preferred him even to Pindar. Of his odes, hymns, pæans, triumphal songs, the few fragments which remain are collected in some editions of Pindar, and in the *Analecta* of Brunck: there are many traces of him in the odes of Horace. Without having the impetuous, eagle-flight of Pindar, he was neither destitute of fire and energy, nor of grace and richness.

BACCIO DELLA PORTA, Francisco Bartolomeo, better known under the name of *Fra Bartolomeo di San Marco*,* born in 1469, at Savignano, near Prato, in Tuscany, learned, in Florence, the first principles of painting from Cosimo Roselli, made rapid progress, and acquired, by studying the works of Leonardo da Vinci, that beauty and grandeur of style, that vigor of coloring and of outline, by which his later productions are distinguished. At this time, he undertook his famous fresco in the church-yard of the hospital Santa Maria Nuova, representing the last judgment, which was finished by his friend Albertinelli. Seduced by the preaching of the fanatical Savonarola, he abandoned every thing to follow him, and shut himself up, with a great number of his followers, in the monastery of San Marco, when this turbulent preacher of sedition was pursued by the officers of justice. The monastery was besieged, and B. made a vow to become a monk, if he should happily escape this peril. In consequence of this vow, he took the Dominican habit in the same monastery, 1500, and assumed the name of *Fra Bartolomeo*. This event agitated him so much, that, for the space of four years, he did not touch his pencil, and employed it afterwards only on devotional subjects. The pictures which he executed at this period are superior to his earlier productions. Raphael visited Florence in 1504, and contributed to the brilliant success of *Fra Bartolomeo*. The latter learned perspective from his friend, and gave him, in return, instruction in coloring. Some years afterwards, he visited Michael An-

gelo and Raphael at Rome, and had the rare modesty to do homage to their great talents by confessing his own inferiority. After his return to Florence, he executed several religious pictures, among which were a saint Mark and saint Sebastian, two compositions which obtain the admiration of every connoisseur. His style is severe and elevated, but, at the same time, very graceful in youthful figures; his coloring possesses vigor and brilliancy, and comes near to that of Titian and Giorgione. But he particularly excels in drapery, which none before him represented with equal truth, fulness and ease. He died in 1517. His disciples were Cecchino del Frate Benedetto, Ciamfanini, Gabriel Rustucci and Fra Paolo of Pistoia, who inherited his designs. His excellent pictures are preserved in the gallery of the grand duke at Florence and in the palace of Pitti.

BACCIOCCHI, Felix Pascal, formerly prince of Lucca and Piombino, husband of Elisa Bonaparte, sister of Napoleon, born May 18, 1762, in Corsica, of a noble but poor family, entered the army as a cadet, and was a captain when Bonaparte commanded the army in Italy. At this time his marriage took place, in consequence of which he was made colonel of the 26th regiment of light infantry, afterwards president of the electoral college of Ardennes, and, in 1804, a senator, without having distinguished himself, either from want of ability or of opportunity. In 1805, he received the title of *prince*, from the principality of Lucca and Piombino, assigned to his wife, whom, after the revolution of 1814 and 1815, he accompanied into banishment. From that time he lived with her and his son, under the surveillance of the Austrian government, at Trieste.—His wife, Marie Anne Elisa Bonaparte, born at Ajaccio, Jan. 8, 1777, and educated in the royal institution for noble ladies at St. Cyr, had lived with her mother, at Marseilles, during the revolution. In 1797, she married captain Bacciocchi, according to the wish of her mother, but without the consent of her brother, who was then general-in-chief. In 1799, she went to Paris, and resided there with her brother Lucien, who awakened in her a taste for poetry and the fine arts. She collected around her the most accomplished men of the capital, among whom were the chevalier de Boufflers, Laharpe, the viscount Châteaubriand and the marquis de Fontanes. Generous as she ever was towards distinguished talent, she conferred particular

* *Fra* is the abbreviation of *frate* (brother), and is often put before the names of monks.

obligations on the two last. Fontanes was patronised by Napoleon, chiefly, through her recommendation. Conscious of her intellectual superiority, she kept her husband in a very subordinate situation. It was she, in fact, who governed the principalities of Lucca and Piombino, and, as grand duchess of Tuscany, she enacted the part of a queen. When this *Semiramis of Lucca*, as a witty writer styles her, reviewed the troops of the duchy, her husband discharged the office of aide-de-camp. She introduced many improvements, though not properly assisted by the officers intrusted with her confidence. In 1814, she retired to Bologna, but was obliged, in the following year, to reside in Austria. Here she lived, at first, with her sister Carolina; afterwards, with her family, under the inspection of the government, at Trieste, where she called herself the *countess Compignano*. Elisa Bacciocchi died of a nervous fever, August 7, 1820, at her country seat, Villa Vicentina, near Trieste. She was deposited in the chapel of her own palace, in a tomb built by herself. In Trieste, she was distinguished for charity and benevolence. Notwithstanding her wish, that her daughter Napoleona Elisa, born June 3, 1806, and her son, should be put under the care of her brother Jerome, her husband remained their legal guardian.

BACH, John Sebastian, among the German musical composers of the last century, one of the most famous, and the greatest of this name, so distinguished in musical literature, born in 1685, at Eisenach, died in 1750, at Leipsic. He received his first instruction on the harpsichord, at Ordruff, from his elder brother, John Christopher. After the death of his brother, he studied music at Lüneburg, and made himself familiar with the French style, while in the chapel of the duke at Halle; in 1703, entered into the service of the duke of Weimar; went, in 1704, to Arnstadt, where he made great proficiency; was, in 1707, organist at Mühlhausen; in 1708, organist of the court in Weimar; and, in 1714, master of the concert at the same place; afterwards, in 1717, chapel-master at Cöthen; in 1723, chanter and director of music at St. Thomas' school at Leipsic; and, in 1736, composer at the royal and electoral court of Saxony. His life has been written by Forkel. As a player on the harpsichord and organ, Sebastian Bach had no equal among his contemporaries. His compositions breathe an original inspiration, uncontaminated by foreign taste, and are chiefly of the

religious kind. They consist of *cantatas* and *motettos*, and many pieces for the organ and the piano.—B.'s family came from Presburg, in Hungary, which Sebastian's father, John Ambrosius, himself a good musician, left on account of religious difficulties, and settled in Germany. More than 50 musical performers have proceeded from this family. Sebastian himself had 11 sons, all distinguished as musicians. The most renowned were the following: Wilhelm Friedemann, born in 1710, at Weimar, died master of the chapel of Hesse-Darmstadt, at Berlin, in 1784. He was one of the most scientific harmonists, and most skilful organists.—Charles Philip Emanuel, born in 1714, at Weimar, died in 1788, at Hamburg. After having studied law at Leipsic, he went to Berlin, as a musician in the Prussian service, and was, finally, director of the orchestra at Hamburg. He has composed mostly for the piano, and has published melodies for Gellert's hymns. His vocal compositions are excellent. His essay on the true manner of playing on the harpsichord is, even now, a classical work in its kind.—John Christopher Frederic, born at Weimar, 1732, died in 1795, master of the chapel at Buckeburg, a great organist, is known also by the music he has published.—John Christian, born in 1735, at Leipsic, died in London, 1782, was, on account of the graceful and agreeable style in which he wrote, a favorite composer with the public.

BACHARACH; a small place, of 1200 inhabitants, on the Rhine, three leagues from Bingen. It contains the ruins of the castle Stahleck, also those of a church, and another church, still existing, in the true Byzantine style. It produces excellent wine, which was once so highly esteemed, that pope Pius II (Æneas Sylvius) ordered every year a quantity to Rome, and the emperor Wenceslaus granted to Nuremberg some important privileges for a moderate quantity of this delicious beverage. The view from the ruins of the castle is one of the sublimest on the Rhine.

BACHAUMONT, François le Coigneux de, born at Paris, 1624, died there, 1702, was early employed as counsellor of the parliament of Paris, of which his father was president. In the disturbances of 1648, he took part against the court, and from him originated the name of the *Fronde*. He said that the parliament reminded him of the school-boys who played with slings in the *boulevards* of Paris, and dispersed at the sight of a police officer, but collected again as soon as he was out

of sight. The comparison pleased; the enemies of Mazarin adopted hat-cords in the form of a sling (*fronde*), and were called *Frondeurs*. In the war of the *Fronde*, B. found frequent occasion to exercise his wit, in epigrams, against the court. After the troubles were past, he devoted himself to pleasure and to poetry. Similarity of taste and character produced an intimate friendship between him and La Chapelle, and they composed, in common, that charming account of a Journey, which met with so much favor among the friends of light and sportive poetry. He has written, also, many gay songs, which, however, are too much scattered to allow of a complete collection being made. M. Lefevre de St. Marc has published one, but does not pretend that all the pieces are genuine.

BACHELOR. (See *Baccalaureus*.)

BACK; a word often used in sea-terms. *To back an anchor*; to carry out a small anchor, ahead of the large one, in order to support the latter.—*To back and fill*, is an operation generally performed in narrow rivers, when a vessel has the tide in her favor, and the wind against her.—*To back the sails*, is to arrange them in a situation that will occasion the vessel to retreat, or to move astern, in consequence of the tide or current being in her favor, and the wind contrary, but light.—*Back the main-topsail*; the command to brace that sail in such a manner, that the wind may exert its force against the fore-part of the sail, and, by thus laying it aback, materially retard the vessel's course.

BACKGAMMON; a game played with dice, by two persons, on a table divided into two parts, upon which there are 24 black and white spaces, called *points*. Each player has 15 men, black and white, to distinguish them. The word is of Welsh origin, signifying *little battle*.—*Laws of the game*. 1. If a man is taken from any point, it must be played. 2. A man is not played, till it is placed upon a point and quitted. 3. If a player has only 14 men in play, there is no penalty attending it. 4. If he bears any number of men before he has entered a man taken up, and which, of course, he was obliged to enter, such men, so borne, must be entered again in the adversary's table, as well as the man taken up. 5. If he has mistaken his throw, and played it, and his adversary has thrown, it is not in the choice of either of the players to alter it, unless both parties agree to it. (See *Hoyle's Games*, improved from the latest and best authorities.)

BACKEREEL, or **BACQUERELLI**, William; a Dutch historical painter, born at Ant-

werp, and a disciple of Rubens at the same time with Vandyke. Sandrart observes, that, in his time, there were seven or eight eminent painters of this name in Italy and the Low Countries.

BACKHUYSEN, Ludolf, one of the most celebrated painters of the Dutch school, particularly in sea-pieces, born in 1631, at Embden, was first employed as a clerk by his father, who was secretary to the states-general. He afterwards entered a mercantile house at Amsterdam, and, without instruction, began to sketch the vessels which arrived in the harbor. These attempts met with applause, and led him to devote himself entirely to painting. He received instruction from von Everdingen, and soon acquired, by his assiduity, and his frequent visits to the rooms of the best artists, an extraordinary degree of facility and skill; but what most contributed to his rapid progress was, the zeal with which he studied nature. On the approach of a storm, he was accustomed to embark in a light boat, and calmly observe the motions of the waves, the tremendous shock of the breakers, and the tossings of the agitated vessels. The terrified sailors often forced him to the shore, in spite of his earnest entreaties. Full of what he had seen, he then hastened home, without speaking a word, or allowing his attention to be distracted by any other object, and completed, with admirable exactness in the most minute particulars, the sketches which he had already made. This courageous zeal procured his pictures the first rank in their class. Several princes visited his rooms, and Peter the Great even wished to take lessons of him. The burgomasters of Amsterdam commissioned him to execute a sea-piece, for which they paid 1300 florins, and which they presented, in 1665, to Louis XIV. This beautiful picture is still in Paris. In all his paintings, the utmost truth prevails. His colors are excellent, and his stroke is remarkably well suited to imitate the water and its motions. his skies are light, and of a great variety. B. also attempted poetry, and gave instruction in penmanship. His gayety and strength of mind did not quit him even during the long sufferings which put an end to his life, in 1709, at the age of 78 years. His pictures will always retain a high value. At the sale of the pictures of P. de Smeth, in Amsterdam, 1810, four pieces of Backhuysen were sold for 550, 805, 980, and 1400 florins.

BACON, Anthony, the son of sir Nicholas, and elder brother to the celebrated

lord chancellor, was born in 1558. He studied at Cambridge, and travelled much. In 1579, he went to Paris, and resided there, and in other parts of France, a considerable time. He there became acquainted with Henry IV, with whom, and with many of the first literati of Europe, he carried on an extensive correspondence after he had returned to England. The time of his death is not known.

BACON, Francis, baron of Verulam; one of the most remarkable men of whom any age can boast; a reformer of philosophy, by founding it on the observation of nature, after it had consisted, for so many centuries, of scholastic subtilties and barren dialectics. He was born at London, in 1561, and displayed, from his earliest childhood, proofs of a superior mind. In his 13th year, he entered the university of Cambridge, where he made astonishing progress in all the sciences there taught. He had not completed his 16th year, when he wrote against the Aristotelian philosophy, which seemed to him more calculated to perpetuate disputes than to enlighten the mind. It was then the custom, in England, to send abroad, particularly to France, those young men who were destined for public life. Young B. went to Paris in the suite of sir Amias Paulet, who soon after sent him to England with an important message. He discharged it to the satisfaction of the queen (Elizabeth), returned to France, and travelled through several provinces of that country, to study its manners and laws. When 19 years old, he wrote a work, entitled, *Of the State of Europe*, in which he gave the most astonishing proofs of the early maturity of his judgment. The death of his father called him back to England, where, in order to be enabled to live suitably to his rank, he devoted himself to jurisprudence, and pursued the study of the law with so much success, that he was made counsel extraordinary to the queen before he was 28 years old. His professional labors did not, however, make him lose sight of the idea, which he had early conceived, of reforming the plan of scholastic studies agreeably to sound philosophy. His place was more honorable than lucrative. B.'s talents, and his connexion with the lord treasurer Burleigh, and his son sir Robert Cecil, first secretary of state, seemed to promise him the highest promotion; but the enmity between the latter and the earl of Essex, likewise a friend and protector of B., prevented his advancement. Essex endeav-

ored to indemnify him by the donation of an estate in land. B., however, soon forgot his obligations to this generous benefactor, and not only abandoned him as soon as he had fallen into disgrace, but, without being obliged, took part against him on his trial. Against this ingratitude the public voice was raised, and, whatever B. might say in his justification, he remained at court the object of hatred to one party and of jealousy to the other, and the queen did not appear inclined to do any thing in his favor. In parliament, he conducted, for some time, with dignity and independence. He had been chosen member for the county of Middlesex, in 1593, and voted with the popular party against the measures of the ministers, though he continued in the service of the crown. But, towards the end of Elizabeth's reign, his parliamentary conduct became more servile. If any thing can excuse him, it is his poverty, which was so great that he was twice arrested for debt. The reign of James I was more favorable to him. This prince, who was ambitious of being considered a patron of letters, conferred upon him, in 1603, the order of knighthood. Having been commissioned to make a solemn representation of the oppressions committed by the royal purveyors in the king's name, he executed the task with so much address as to satisfy both the king and the parliament. The house of commons voted him the public thanks, and James made him one of the king's counsel, with a pension of 40£, which was soon followed by another of 60£. His situation now continually improved: he contracted an advantageous marriage; in 1617, was made lord keeper of the seals; in 1619, lord high chancellor of England and baron of Verulam, and, in the following year, viscount St. Alban's. He might now have lived with splendor, without degrading his character by those acts which have stained his reputation. Nevertheless, great complaints were made against him. He was accused, before the house of lords, of having received money for grants of offices and privileges under the seal of state. He was unable to justify himself, and, desiring to avoid the mortification of a trial, confessed his crimes, and threw himself on the mercy of the peers, beseeching them to limit his punishment to the loss of the high office which he had dishonored. After he had acknowledged, by an explicit confession, the truth of almost all the charges, notwithstanding the intercession of the king, and the interest

which they themselves took in one of their most distinguished members, the lords sentenced him to pay a fine of 40,000£, and to be imprisoned in the Tower during the pleasure of the king. He was also declared forever incapable of place or employment, and forbidden to sit in parliament, or to appear within the verge of the court. This severe sentence was doubtless just; yet it must be allowed, that he was actuated neither by avarice nor corruption of heart, but that his errors are rather to be attributed to a weakness of character, which was abused by others. Traits of generosity and independence, which his life also displays, show clearly that he knew and valued virtue. He was unfaithful to it because he had not sufficient firmness to refuse the unjust demands of others. His sentence was not rigorously executed; he was soon released from the Tower, and the rest of his punishment was, by degrees, remitted entirely. He survived his fall only a few years, and died in 1626.—All the studies and efforts of this great man aimed at a reform in the system of human knowledge. He examined the whole circle of the sciences, investigated their relations, and attempted to arrange them according to the different faculties of the human mind, to which each belongs. In this, however, he could not succeed, for want of a well-founded and natural division of the powers of the mind; for he divided the sciences into those of the memory, of the understanding and of the imagination. This he explains in his *Instauratio Magna*, under the head *De Dignitate et Augmentis Scientiarum*. B. further perceived that, in all the branches of natural science, the only way to truth is by the observation of nature. How this observation is to be directed, and how nature is to be examined, is illustrated in several places. He explained his ideas on this subject in the above-mentioned treatise (*De Dignitate, &c.*), and in the *Novum Organum Scientiarum*. His universal genius had attended to all the sciences; he perceived to what point each of them had advanced, what false directions they had taken, and how they were to be brought back to truth. As a metaphysician, he displays no less penetration than profoundness in his views of the operations of the mind, of the association of ideas, and of the prejudices which surround us from our cradle, and prevent the free exercise of reason. As a natural philosopher, he brought forward very ingenious views, and was on the route to several impor-

tant discoveries. He invented a kind of pneumatic machine, by his experiments with which he was led to suspect the elasticity and gravity of the air, which Galileo and Torricelli afterwards discovered. He clearly indicated the attraction of gravitation, which Newton afterwards proved. He wanted only experiments in order to demonstrate the principles of this power. He treated also of natural history, but only in an abridged manner, in his work *Sylva Sylvarum, &c.* He wrote several treatises on medicine; among others, one on life and death. But physiology and chemistry were then so imperfectly understood, that he could not avoid falling into great errors. The science of law he treated not merely as a lawyer, but as a legislator and philosopher. His aphorisms are not less remarkable for profound views than for vigor and precision of expression. Morals are the subject of one of his finest works, entitled *Essays, or Sermones Fideles*—a treasure of the most profound knowledge of man and of human relations, delivered in an eloquent and vigorous style. As a historian he is less distinguished; he wrote a history of Henry VII. Of his knowledge of antiquity, his work *On the Wisdom of the Ancients* bears witness, in which he explains the ancient fables by ingenious allegories. B. possessed a less profound knowledge of mathematics, and to this it is to be ascribed, that he who so generally discovered the errors of the human mind, and pointed out the truth, opposed the Copernican system. In this point alone he remained behind some enlightened men of his time. In other departments of human investigation, he soared to such a height, that his contemporaries could not fully estimate the extent of his genius, the justness of his views, and the importance of his labors. He himself was his only judge, and, with a just pride, he says, in his will, "My name and memory I bequeath to foreign nations and to my own countrymen, after some time be passed over." Göthe says of B., "He drew a sponge over the table of human knowledge." The best edition of all his works appeared in London, in 1765, in 5 vols. quarto. They are partly in English, partly in Latin. The Library of Useful Knowledge contains a popular treatise on the *Novum Organum*.

BACON, Nathaniel, a leader of insurgents in Virginia, while under the royal government, was educated in England, where he engaged in the profession of the law. About the year 1675, he came to Virginia, bringing with him a high

reputation for talent and legal erudition, which soon rendered him conspicuous, and obtained him a seat in the provincial council. At the time of his arrival, the people of the colony were in a state of great exasperation against the English government, in consequence of various obnoxious proceedings, and, shortly after, took up arms. The commanding person and lofty character of B. attracted the attention of the multitude, who made him their leader. He immediately set about confirming the spirit of the people, and making preparations for an inroad upon the savages. Affecting to consider himself as acting in submission to the proper authorities, he requested the governor of the colony, sir William Berkeley, to grant him a commission confirming his appointment by the people. This was refused, and a proclamation issued, commanding the mutineers and their leader to surrender, under penalty of treason. This proclamation, however, was of no avail, as the revolt had become general. The governor was obliged to descend to concessions, and dismantle the forts, dissolve the old assembly, and issue writs for a new election, which, of course, terminated in favor of the malcontents, and reinstated B. in the council.—Whilst these events were passing at the capital, B. had attacked some of the Indian settlements, and taken a considerable number of captives. On his return to Jamestown, having embarked in a sloop with only 40 men, he was made prisoner by the English vessels which covered the river, and sent to the city. The governor, deeming this a favorable opportunity to conciliate the disaffected by an act of clemency, immediately reversed his attainder, and admitted him to his seat in the council. B. soon after returned to his army, and charged the governor with duplicity in withholding his commission, which, he said, had been promised to him at the time when he was set at liberty, and with obstinacy in not according the redress due to their courage and sufferings. By these means he so inflamed their minds, that they demanded to be led to Jamestown. He complied with their wishes, and, by means of their presence, and the solicitations of a majority of the assembly, he procured the governor's signature to an act of indemnity, and a commission of general for himself. He then left the city, and led his soldiers towards the frontiers.—During his absence, the governor dissolved the assembly, issued a second proclamation declaring B. a rebel,

and raised his standard in Gloucester county, the inhabitants of which remained faithful to him. Receiving intelligence of these occurrences, B. immediately retraced his steps. On his approach, the governor hastily withdrew, with a few friends, to Accomac, which, though properly under the jurisdiction of the colony, was nominally a distinct territory. Pretending that, by retiring to this place, the governor had abdicated his authority, B. assembled a number of the most influential men of the colony, who expressed the same opinion. Upon this he called an assembly, by writs with his signature and those of four other members of the council. Having now procured a shadow of authority for his measures, B. renewed his Indian expedition. Several savage tribes had confederated on the frontiers since his departure, and committed numerous depredations. He came up with their army near a stream, since called the *Bloody run*, from the sanguinary conflict which took place on its margin, and defeated it with great slaughter.—In the interim, the governor had collected a body of troops, to the number of 600, and regained possession of Jamestown. B. received the account of this revolution during his return, and, although his army was reduced to 300 men, immediately marched towards the city. When arrived near it, he caused his men to erect a breast-work, under cover of which they might repose in safety. Here they were attacked by the governor, but unsuccessfully. Finally, the governor was obliged to abandon the town, and retreat to the vessels on the river, in consequence of the numerous desertions from his army, and the daily increase of his adversaries.—When B. recovered the capital, perceiving that every article likely to be useful to his army had been carried off or destroyed, and that it was not susceptible of defence against regular approaches, he caused it to be burnt. He then proceeded to organize the new government, which he did on the most popular footing, and established the seat of his administration at Middle Plantation. But death soon put an end to his career. In the trenches before Jamestown, he had caught a cold, which settled into a diarrhoea, that exhausted his constitution, but could not check his efforts. At length he sunk under it, and died, at the residence of a doctor Pate, in Gloucester county, in the year 1677.—B. was a man of a sanguine temper, much courage, promptness, decision and presence of mind.—After his death, the insur-

gents gradually relaxed their exertions, and the province soon returned to its allegiance. This rebellion cost the colony 100,000*l*.

BACON, Roger, an English monk, who, by the power of his genius, raised himself above his time, made astonishing discoveries in several sciences, and contributed much to the extension of real knowledge. He was born in 1214, near Ilchester, in the county of Somerset, of an old and respectable family. Following the impulse of an inquisitive spirit, he overcame all the obstacles opposed to his progress by ignorance and superstition. He first entered the university of Oxford, and went afterwards to that of Paris, then much frequented, where he distinguished himself much by successful study, and received the degree of doctor of theology. In 1240, he returned to England, where he entered the order of Franciscans, and fixed his abode at Oxford. Natural philosophy seems then to have been the chief object of his labors; but this study required expenditures beyond his means. He met, however, with generous friends of science, whose contributions enabled him to purchase books, to prepare instruments, and to make the necessary experiments. In examining the secrets of nature, he made discoveries, and deduced results, which gained him the admiration of the enlightened, who comprehended their natural connexion; but which appeared so extraordinary to the ignorant, that they were believed to be works of magic. This opinion was countenanced by the jealousy and hatred of the monks of his fraternity. He himself loudly blamed the ignorance and corruption of the clergy, and in particular of the monks, and even wrote a letter to the pope, representing the necessity of reform. In revenge, they denounced to the court of Rome his dangerous opinions and astonishing operations, which they attributed to the agency of the devil. The pope forbade him to teach at the university. He was soon afterwards thrown into prison, prevented from holding communication with any person, and even deprived of necessary food. Among the few enlightened individuals, who admired his genius and pitied his misfortunes, was the cardinal bishop of Sabina, papal legate in England, who no sooner ascended the papal chair, under the name of *Clement IV*, than he liberated him, and took him under his protection. *Clement* demanded a collection of all his works; upon which B. wrote that work, which was afterwards printed, under the title of

Opus Majus, and sent it to him by his favorite disciple, John of Paris, in 1267. Under *Clement's* successor, *Nicholas III*, the general of the Franciscans, *Hieronymus* ab *Esculo*, declared himself against B., forbade the reading of his writings, and issued an order for his imprisonment, which was confirmed by the pope. This new confinement lasted 10 years; and when *Hieronymus* ab *Esculo* was elected pope, under the name of *Nicholas IV*, B. vainly endeavored to convince him of the innocence and utility of his labors, by sending him a treatise *On the Means of avoiding the Infirmities of Old Age*. After the death of *Nicholas IV*, he regained his liberty by the intercession of some distinguished Englishmen, and returned to Oxford, where he wrote a *Compendium of Theology*, and died soon afterwards, according to some, in 1292, or, as others think, in 1294. Though an extraordinary man, B. could not entirely free himself from the prejudices of his time. He believed in the philosopher's stone and in astrology. There are to be found in his writings new and ingenious views on optics, e. g., on the refraction of light, on the apparent magnitude of objects, on the magnified appearance of the sun and moon when in the horizon, &c. He describes very exactly the nature and effects of convex and concave lenses, and speaks of their application to the purposes of reading, and of viewing distant objects, both terrestrial and celestial; and it is easy to prove from his writings, that he was either the inventor or improver of the telescope. He also gives descriptions of the *camera obscura*, and of the burning-glass. He made, too, several chemical discoveries. In one place he speaks of an inextinguishable fire, which was probably a kind of phosphorus: in another, he says that an artificial fire could be prepared with saltpetre and other ingredients, which would burn at the greatest distance, and by means of which thunder and lightning could be imitated: a portion of this mixture, of the size of an inch, properly prepared, would destroy a whole army, and even a city, with a tremendous explosion, accompanied by a brilliant light: and, in another place, he says decidedly, that thunder and lightning could be imitated by means of saltpetre, sulphur and charcoal. Hence he had already an idea of gunpowder. He was so well versed in Greek and Hebrew, and wrote Latin with such elegance and clearness, that his acquirements in these respects would alone secure him a high character.

He was intimately acquainted with geography and astronomy, as appears by his discovery of the errors of the calendar, and their causes, and by his proposals for correcting them, in which he approached very near to truth. He himself made a corrected calendar, of which there is a copy in the Bodleian library. Even in moral philosophy, B. has laid down some excellent precepts for the conduct of life, and is, in every respect, entitled to a remembrance as a great philosopher and a wonderful man.

BACTRIANA, or **BACTRIA**; one of the principal provinces of ancient Persia, and, before Cyrus, a powerful kingdom, the inhabitants of which were noted for bravery. On the north and east, it was bounded by one of the largest rivers of Asia, the Oxus, now *Gihon*; on the south, it stretched along the Paropamisus; on the west, it reached Margiana. On account of its situation and fertility, it had made great progress in civilization at a very early period. The Persians derived their mythology, religion and architecture from Bactria. Bessus here declared himself sovereign of Asia, after the destruction of the Persian monarchy. It is to be regretted, that our knowledge of this country is but slight. Even the companions of Alexander give no particular account of it.

BADAJOS, or **BADAJOX** (with the Romans, *Pax Augusta*); the fortified capital of the Spanish province Estremadura, on the left bank of the Guadiana, which is crossed by a stone bridge of 22 arches. B. lies not far from the Portuguese frontiers, and has 14,000 inhabitants. Lon. 6° 47' W.; lat. 38° 49' N.; 82 miles N. N. W. of Seville. B. contains a cannon foundry, and is a bishop's see. It was besieged, in the wars with Napoleon, three times by the English. After the expulsion of Massena from Portugal, and his retreat through Estremadura, it was the chief object of the British general to take B., which the French had possessed from March 10, 1811, as well as Ciudad-Rodrigo and Almeida. After the capture of Olivenza (April 16, 1811), Wellington caused B. to be invested; but, as Soult approached to its succor, he was obliged to raise the siege, May 14. After the battles of Fuentes d'Onor and Albufera, B. was besieged a second time, May 25; but, after several unsuccessful attacks, Wellington raised the siege, June 16, 1811. After the capture of Ciudad-Rodrigo (Jan. 19, 1812), Wellington commenced the third siege, March 17, with 16,000 men,

and, on the 6th of April, took the city by storm, after a sanguinary conflict. The garrison, together with the commander, general Philippon, were made prisoners. The besiegers lost 72 officers and 963 men killed; 366 officers and 3483 men wounded.—In the peace of B., concluded between Spain and Portugal, 6th June, 1801, Portugal promised to shut its harbors against the English. Spain retained Olivenza and its territory along the Guadiana. (See *Portugal*.)

BADEN, grand-duchy; governed by a family of princes, who derive their origin from Godfrey, a duke of the Alemanni, who defended his country till his death, in 709, against the attempts of the Franks. In 1801, the government devolved upon Charles Louis Frederic, who, in 1806, was married to Stephanie Louise Adrienne Napoleone, an adopted daughter of Napoleon. After his death, Dec. 8, 1818, as he left no male descendants, his uncle, the present grand-duke, Louis William Augustus, became his successor, with the title of *margrave*. He was born Feb. 9, 1763. This prince has no children; hence the sons of the last grand-duke but one, and of the countess of Hochberg, will succeed him. The eldest of them, Leopold (born in 1790), was married, in 1819, to Wilhelmina, eldest daughter of the late king of Sweden, Gustavus IV.—Until the peace of Luneville, the territory of Baden contained 1631 square miles, with 210,000 inhabitants. At this peace, 169 square miles, with 25,000 inhabitants, were given up, and, on the other hand, 1270 square miles, with 245,000 inhabitants, were gained. May 1, 1803, the margrave received the dignity of elector. By the peace of Presburg, which restored Brisgau to Baden, and by her accession to the confederation of the Rhine, to which she owes the grand-ducal title, and the sovereignty of the greater part of the territory of the prince of Furstenberg, of the landgraviate of Clettgau, and of the principality of Leiningen, &c., as well as by the exchange of lands with Wurtemberg, in 1810, which added to Baden almost 30,000 new subjects, the size of her territory has been enlarged to 5900 square miles, with 1,145,000 inhabitants. This was the number of inhabitants in 1826. In 1822, there were 1,090,910, according to official papers, showing an increase at the rate of one and forty-eight hundredths annually. The hereditary lands (Baden-Baden and Baden-Durlach) contain, exclusive of the territories ceded, 1080 square miles, with 217,381 inhabit-

ants; and the whole of the acquisitions have been estimated at about 4450 square miles, with 750,000 inhabitants; among which, however, some seignories seem not to be comprehended. The grand-duchy contained, in 1819, eight seignories, comprising 1315 square miles and 196,000 inhabitants, and a taxable capital of 139,306,000 florins, besides 81 independent proprietors, with 635 square miles, 120,000 inhabitants and 99,043,000 florins taxable capital. Setting these aside, there remain under the exclusive control of the sovereign, about 3800 square miles, with 690,000 inhabitants, and 535,531,000 florins taxable capital. The finance regulations for 1825, 1826 and 1827, fixed the revenue of the state at 9,320,280 florins, from which are to be deducted the expenses of the administration, 2,110,465 florins. According to the budget of 1820, Baden had but 14,605,100 florins of debts. After the battle of Leipzig, the grand-duke of Baden left the confederation of the Rhine, and, in 1815, joined the German confederation, in the diet of which he has the seventh place, and in the general assembly (*plenum*) three votes.

The country of Baden, one of the most fertile in Germany, extends to a great length, but with little width, along the Rhine, from its outlet from lake Constance to the confluence of the Neckar, and consists mostly of a fertile plain, with excellent corn-fields and vineyards, washed on the west by the Rhine, and bordered on the east by the Oden-wald and the Black Forest, of both which mountains considerable parts belong to this grand-duchy, and contribute to its beautiful scenery, among which the charming Bergstrasse and the picturesque valley of the Murg are distinguished. The chief productions are grain, which is abundant, in particular, spelt, a great plenty of fruit (in the warm regions of the Bergstrasse, almonds, chestnuts and walnuts are found), of which a great deal is exported, tobacco, madder, excellent hemp and good wines, many kinds of which are esteemed in foreign countries. The forests are likewise in an excellent condition, as the former grand-duke was careful to preserve them, whilst other princes of Germany wasted their woods. By means of mercantile societies, and the easy communication afforded by the rivers Murg, Kenzig and Rhine, considerable commerce in wood has been carried on between Baden, France and Holland. The raising of cattle is extensively pursued in

the regions of the Black Forest. In the mountains, minerals of various kinds are found, but there is a deficiency of salt. From the sands of the Rhine gold is washed, of which Baden, in former times, coined ducats, bearing the inscription, *Sic fulgent litora Rheni*. The manufactures are limited. They employ about 10,000 persons. Most of them are in Mannheim, Pforzheim and Carlsruhe. The manufactures of jewelry, of toys and trinkets, at Pforzheim, of which there are, at present, 21, producing annually wares to the amount of 600,000 florins, are generally known. A peculiar branch of industry, among the inhabitants of the Black Forest, is the making of wooden clocks. This business employs about 700 workmen, who furnish annually above 100,000 clocks, which are sold all over Europe and in America. The exports of the country, however, consist rather of its natural productions than of its manufactures, and are easily transported along its good roads, and the navigable rivers Rhine, Neckar and Main. On account of its situation between Germany, France and Switzerland, Baden derives much advantage from its carrying trade. The majority of the inhabitants are of the Catholic church, though the grand-duke is a Lutheran. For the instruction of the Protestant youth, and for the country schools, which are every where established, teachers are educated in the seminary at Carlsruhe. Provision is made for the promotion of learning by the Latin schools, academies and gymnasiums, and by the universities of Heidelberg and Freiberg. On the 3d of May, 1819, the grand-duke established the following division of the state: the capital, Carlsruhe, belongs to no circle, but is immediately subject to the minister of the interior; the rest of the state is divided into six circles. Since that time, in consequence of the convention with Bavaria and Austria (Frankfort, July 10, 1819), the Austrian county Hohengeroldseck (near the Black Forest, containing 52 square miles and 4500 inhabitants, and yielding a revenue of 34,000 florins) has been incorporated with Baden, for which she gave up to Austria a proportional part of Wertheim. The grand-duchy of Baden anciently enjoyed, like almost all the countries of Europe, a constitution in which the estates were represented. This was, however, finally lost, like the constitutions of most of the other states. After the middle of the 17th century, the dukes of Baden were absolute, till the reigning grand-

duke, in 1818, bestowed on his subjects a constitution, proceeding, like the French, from the prince alone (*constitution octroyée*), and not consisting of a compact between the people and the prince, like the English constitution, or that of Würtemberg. The legislature of Baden now consists of two chambers. To the first one belong, besides the peers, eight deputies of the nobility, one deputy of each of the universities of Baden, the Catholic bishop and a Protestant prelate; and the grand-duke can besides nominate eight members, without reference to their birth or station. Accordingly, the first chamber may consist of 28 members. The second chamber consists of 63 deputies; one for about 16,000 souls. Every citizen and officer of government may partake in the elections. A deputy must possess either a taxable property of 10,000 florins, or some office which gives him an income of at least 1500 florins. In 1819, the chambers assembled for the first time, but were dissolved July 28, because they could not agree either with each other or with the ministry. In 1820, they were assembled again, and, though the dissensions had by no means subsided, they agreed on some important measures—the abolition of the remains of bond-service, the responsibility of ministers, &c. The discussions have been published by each of the chambers, at Carlsruhe.

BADEN (a German word signifying *bathing*); the name of three cities famous for their baths:—Baden in Suabia, with 418 houses and 3200 inhabitants (*Civitas Aurelia aquensis* of the Romans), in later times, during 600 years, the residence of the margrave of Baden, situated in a charming vale, about two leagues from the river Rhine. The castle affords, from all sides, the most splendid prospects. It contains a number of subterranean vaults, which, according to tradition, served as a seat of the secret court of criminal justice, called the *Feme*. They were probably made by the Romans. The hall of antiquities (*museum palæo-technicum*) contains Roman monuments, which have been found in the vicinity. The college church of the Jesuits is distinguished by the sepulchres of the margraves. It has six altar-pieces, painted by Lill, after Guido Reni. Baden has 26 mineral springs, the principal of which has a temperature of 133° Fahrenheit, and affords, in 24 hours, 7,345,440 cubic inches of water. The rock from which it issues is even now covered in part with marble of Carrara, and was probably a Roman bath.

In the former bath for the poor, there are also remains of Roman baths. In the Höllenquelle (hell-spring), of 144° Fahrenheit, meat is cooked. There is a bath for the poor kept in good order before the Geresbach gate.—Baden in Lower Austria, with 400 houses and 2400 inhabitants. Its situation, on rocky hills of limestone, is beautiful. Near the park of the bath of Theresa, with its beautiful alleys, is the lime-rock from which the medicinal spring bubbles out. The temperature of the baths is 92°—97° Fahrenheit. The hottest of them are the Ursprung, the Ladies' bath and Joseph's bath. There are 12 in all. They are built in such a way, that each of them can contain from 40 to 150 persons. Whoever wishes to bathe in private, can do so at a particular hour. The common bath, however, is preferred. On mount Calvary there are vapor-baths. The cave at the Ursprung is noted for a salt deposited on its base, which is called *salt of Baden*. The number of foreigners, who annually visit Baden, is estimated to be from 7000 to 8000.—Baden in Switzerland, in the canton Aargau, on the Limmat, in a very pleasant country. The Romans here founded a city, on account of the medicinal waters, and built a castle at a place where now stands the city. In later times, the assemblies of the representatives of the Swiss federation were held here till 1712.

BADEN, peace of, concluded between Germany and France, Sept. 7, 1714. (See *Rastadt*.)

BADEN-BADEN (Louis William I), margrave of; grandson of the margrave William I, of Baden-Baden; born at Paris, April 8, 1655, where Louis XIV was his godfather. The princess of Carignano, his mother, wished to educate him at Paris, but his father and grandfather secretly took him away, when he was but three months old, that he might pass his childhood among the people whom he was destined to govern. He served his first campaign under Montecuculi, against Turenne, in Alsace, where this great general fell. The prince of Baden was ordered to harass the retreat of the French army, which he did with success, until Condé took the command. Montecuculi gave in his resignation, and the duke of Lorraine succeeded him. Louis served under this general until the peace of Nimeguen, when he returned, in 1678, to his margraviate. When the war between Austria and Turkey broke out, he threw himself, with a body of troops, into Vi-

enna, which was besieged by the Turks. The duke of Lorraine, and the king of Poland, Sobieski, came to the relief of this capital, and Louis effected a junction with them by a vigorous sally. The city was relieved, the Turks retired in disorder, and Louis gained several victories. He subsequently received the command in chief of the imperial army on the Danube, and defeated the Turks, Sept. 24, 1689, at Nissa, and Aug. 19, 1691, at Salenkemen. In 1693, he was intrusted with the command of the imperial army in Germany, against the French; he retook Heidelberg, and afterwards visited England to concert with king William the plan of operations against France. He opened the campaign in the spring of 1694, invaded Alsace, baffled the vigilance of the duke of Lorges, and showed the greatest activity, though he suffered violently from the gout. When the throne of Poland was vacant, by the death of Sobieski, in 1697, he was among the competitors for the crown; but Frederick Augustus II, elector of Saxony, gained the prize, and the margrave returned, after the peace of Ryswick, into his own country. When the Spanish war of succession broke out, he commanded the imperial army, and, in 1702, took Landau, notwithstanding its valiant resistance. In 1703, he showed his talents in the art of fortification, by laying out the famous lines of Stollhofen, which extended from the Black Forest, through Buhl, to Stollhofen and the Rhine. Yet the fortune of war proved, at last, less favorable to him, of which his excessive caution, owing to his bad health, and the poor condition of the army of the empire, were the causes. He was one of the greatest generals of his time, and was never really defeated. After having made 26 campaigns, commanded at 25 sieges, and fought 13 battles, he died at Rastadt, Jan. 4, 1707.

BADENS, Francis; a historical and portrait painter, born at Antwerp in 1751. He was highly esteemed. The news of his brother's having been assassinated caused his death in 1803.

BADGER (*meles*, Briss.); a genus of mammiferous quadrupeds, belonging to the plantigrade tribe, which place the soles of the hinder feet on the ground in walking. The head of the animals pertaining to this genus is very similar to some of the smaller varieties of dogs, having a moderately elongated snout, small eyes, and short, rounded ears. The teeth bear a considerable resemblance, in figure and

arrangement, to those of the bear, to which genus that of the badger is closely allied. The body is large, supported on short, stout legs, the digits of which are enveloped by the integument so as to leave but a small part free, and are provided with long, curved claws, especially adapted for burrowing. The motions of the badger are slow, and the belly appears to be trailed along the ground, although the length of hair on the inferior part of the body makes this trailing appear greater than it really is. Possessing a considerable strength of limb, and claws especially suited for the purpose, the badger excavates a long and winding cavern, at the extremity of which it sleeps securely during the day-time. At night, it comes out to seek for its food, which consists either of vegetables, insects, or small birds, &c.—a regimen which shows the similarity of this genus to the bear as much as its general resemblance of structure. When attacked by dogs or other enemies, the badger defends itself with great resolution, and inflicts many severe wounds on the aggressors before it is finally vanquished. It is, therefore, hunted with eagerness by such as call themselves *sportsmen*, whose greatest amusement is derived from seeing two poor beasts trying to destroy each other. Foxes often drive out the badger from his den, and enlarge it for their own use. On the whole, the badger is a harmless creature, seldom seen unless hunted for, and doing very little injury, except when greatly multiplied. The female brings forth three or four at a litter.—Only two species of badger are known, the European (*M. vulgaris*) and American (*M. labradoria*). The European badger has a broad, white stripe from its forehead down to the nose; and a longitudinal black stripe begins between the eye and snout, on each side, dilating as it goes backward, until it includes the eye and ear, behind which it terminates. The hair covering the body is harsh, long, scattered, and of three colors, white, black and red, differing in the proportion of these tints in different parts. Black is the predominant color on the inferior parts of the body.—The American badger is only found in the remote western territories of the U. States and in some parts of the British possessions in America. It is very different from the European in physiognomy, having a forehead projecting considerably above the root of the nose, which, in the European species, forms a continuous line with the forehead, and in having a longer tail, covered with

long hair, reaching almost to the ground when the animal is walking. The tail of the European badger is not more than half the length of the legs. The color of the American badger is chiefly grayish, and lighter than that of the European. The weight of the American species is from 14 to 18 pounds.

BADIA, Domingo; a Spanish traveller, who, under singular circumstances, visited, in 1803 and the four following years, the Mohammedan countries bordering on the Mediterranean. During the whole of his tour, he professed to be a Mussulman, which character he had qualified himself to support, by submitting to circumcision. He travelled under the denomination of *Ali Bey el Abbassi*, which style he also assumed in his Travels, published in French, at Paris, by Didot, in 1814, 2 vols., 8vo.; and about the same time in English, at London. It is now admitted that he was employed as a political agent by the prince of peace, at the instigation of Napoleon. His peculiar situation and religious profession gave him opportunities for making many observations which could not occur to other travellers; and his volumes are curious and interesting, though rather tinctured with an air of exaggeration, somewhat excusable in a person placed in such extraordinary circumstances. Burckhardt, another Oriental traveller, who heard of Ali Bey at Aleppo, gives the following account of him:—"He called himself *Ali Bey*, and professed to be born of Tunisian parents in Spain, and to have received his education in that country. Spanish appears to be his native language, besides which he spoke French, a little Italian, and the Moggrabeyan dialect of Arabic, but badly. He came to Aleppo by the way of Cairo, Yaffa and Damascus, with the strongest letters of recommendation from the Spanish government to all its agents, and an open credit upon them. He seemed to be a particular friend of the prince of peace, for whom he was collecting antiques; and, from the manner in which it was known that he was afterwards received by the Spanish ambassador, at his arrival in Constantinople, he must have been a man of distinction. The description of his figure, and what is related of his travels, called to my recollection the Spaniard Badia, and his miniature in your library. He was a man of middling size, long, thin head, black eyes, large nose, long, black beard, and feet that indicated the former wearing of tight shoes. He professed to have travelled in Barbary, to have crossed

the Lybian desert, between Barbary and Egypt, and, from Cairo, to have gone to Mecca and back. He travelled with Eastern magnificence, but here he was rather shy of showing himself out of doors: he never walked out but on Fridays, to the prayers of noon in the great mosque. One of the before-mentioned dervishes told me that there had been a great deal of talking about this Ali Bey at Damascus and Hamar: they suspected him of being a Christian; but his great liberality, and the pressing letters which he brought to all people of consequence, stopped all further inquiry. He was busily employed in arranging and putting in order his journal during the two months of his stay at Aleppo." This traveller died in his native country, some time after his return to Europe.

BAERT, Jean; also **BARTH**; born at Dunkirk, 1651; the son of a poor fisherman; according to some, a native of the parish of Corban, in the district of Munster, and the canton of Berne, where his family lives at present. He raised himself, under Louis XIV. to the rank of commodore. The Dutch, English and Spanish called him the *French devil*. The marine of Louis XIV owed principally to this rough mariner the respect which it enjoyed from other nations. B. happening to be at Versailles, the monarch said to him, "Jean Baert, I have made you a commodore." "Sire, then you have done well," answered the mariner. The courtiers laughed; but Louis told them, "This is the answer of a man who feels his own worth." B. brought into port a number of Dutch and English vessels, burned others, landed at Newcastle, and laid waste the neighboring country. In 1692, with a fleet of three sail, he met the Dutch fleet, loaded with corn from the Baltic, put to flight the escort, and took 16 merchantmen. In 1694, when there was a scarcity of corn in France, he succeeded several times, notwithstanding the watchfulness of the English, in bringing into the harbor of Dunkirk ships loaded with this article. Once he delivered a number of such vessels, in the boldest manner, from the Dutch, into whose hands they had fallen, and received, in consequence, letters of nobility. After having passed the English, in 1696, who blockaded the harbor with a fleet three times as strong as his own, he met the Dutch fleet, from the Baltic, consisting of 110 sail, and convoyed by five frigates. The escort, with 40 ships, soon fell into the hands of the French; but, on his return to Dunkirk,

13 Dutch ships of the line appeared, and, to avoid a very unequal combat, he was obliged to burn the greatest part of his captures. The peace of Ryswick put a stop to the deeds of this valiant officer. He spent the last years of his life at Dunkirk, and died there in 1702.

BAFFIN'S BAY; the largest and most northern gulf on the eastern coast of North America; between 70° and 80° N. lat.; discovered by Baffin, in 1616. This gulf flows through Baffin's and Davis's straits, between cape Chidley, on the coast of Labrador, and cape Farewell, on the coast of West Greenland, into the Atlantic. On the south-west side of Davis's strait, Baffin's bay is separated by a mass of islands from Hudson's bay, which abounds with whales. From Baffin's bay captain Parry started, in 1819, in search of the north-west passage.—(See *North Pole, expeditions to*.)

BAGDAD; capital of a Turkish pachalic of the same name, the southern part of Mesopotamia, or Al-Dischizira, now *Irak Arabi*, containing about 70,000 square miles, and 650,000 inhabitants; 44° 25' E. lon., and 33° 20' N. lat. The greatest part of it lies on the eastern bank of the Tigris, which is crossed by a bridge of boats, 620 feet long. The old B., the residence of the caliphs, with 2,000,000 inhabitants, now in ruins, was situated on the western bank of the river. The modern city is surrounded with a brick wall, about six miles in circuit, and with a ditch from five to six fathoms deep, which may be filled with water from the Tigris; but the cannon on the numerous towers are old, and unfit for use. The castle commands the Tigris, and contains an arsenal, but is untenable. The houses, mostly built of brick, are but one story high, the streets unpaved, and so narrow, that two horsemen can scarcely ride abreast. The houses of the wealthy are distinguished by a better architecture. The palace of the governor is spacious, and magnificently furnished. The public baths and the coffee-houses of the city, though in a bad condition, are much frequented. The markets afford an abundance of provisions, at a low price. B. is an important mart for Arabian, Indian and Persian productions, as well as for European manufactures. A splendid view is afforded by the bazars, with their 1200 shops filled with all kinds of Oriental goods. The chief manufactures of the city are, red and yellow leather, much esteemed, and silk, cotton and woollen cloths. With the aid of the English and Persians, the pacha

has established a cannon foundry. B. supplies Asia Minor, Syria, and part of Europe, with East Indian goods, which are imported to Bassora, ascend the Tigris in boats, and are carried by caravans to Tokat, Constantinople, Aleppo, Damascus, and the western parts of Persia. There is also some trade in jewels. An English packet runs between Bagdad and Bassora. A multitude of strangers assemble at B., partly on mercantile business, partly to visit the sepulchres of the saints, among which is that of the prophet Ezekiel. The heat of the summer obliges the inhabitants to shelter themselves in subterranean chambers; but the winter is cold enough to make a fire necessary. The city is, nevertheless, agreeable, healthy, and free from pestilential diseases; but the inhabitants frequently suffer from cutaneous disorders. B. is inhabited by Turks, Persians, Armenians, Jews, and a small number of Christians. The Turks compose three fourths of the whole population. The Jews are confined to a secluded district of the city, and are in a very oppressed condition. Inclusive of the Arabs, Hindoos, Afghans and Egyptians, who are accustomed to reside here, the population may amount to 80,000. The Persians, under the particular protection of the government, enjoy a very extensive trade, and are renowned for honesty, prudence and integrity. The higher classes are more civil and attentive to strangers than is usually the case with Mohammedans. On the other hand, the lower classes are infected with the prevailing vices of the East. The people are bold, enterprising and turbulent. B. was begun, in 762, by the caliph Abu Gifar-Almanzor, finished in four years, and raised to a high degree of splendor, in the ninth century, by Haroun Alraschid; but, 100 years after, it was destroyed by the Turks. In the 13th century, it was stormed by Holagou, grandson of Zingis-Khan, who caused the reigning caliph to be slain, and destroyed the caliphate. The descendants of the conqueror were expelled, in 1392, by Tamerlane (q. v.), and, in 1412, by Kara-Yusef. In the following century, Shah Ismael, the first sovereign of Persia of the house of Sofi, took possession of the city. From that time it was a perpetual subject of contest in the wars between the Turks and Persians. After a memorable siege, in 1638, it was conquered by the Turkish emperor Amurath IV, and Nadir Shah endeavored in vain, in the 18th century, to wrest it from the Turks.

BAGGESEN, Jens (the Danish for *Emanuel*), a Danish poet, who also wrote much in German, was born Feb. 15, 1764, at Corsør. He has given the history of his education, and described the influences which determined his character, in the *Labyrinth*. In 1785, he displayed, in his *Comic Tales*, his humor and power as an author. The prince of Holstein-Augustenburg enabled him to travel through Germany, France and Switzerland. In 1793, he visited Italy. He afterwards received from the Danish government an appointment in Copenhagen. In 1800, he went with his wife, a niece of the famous Haller, to reside at Paris. In 1811, he was appointed professor of the Danish language at Kiel, and, in 1814, resigned his office, and went to reside in Copenhagen. At this time, his poetical fame reached its highest point. He again left Denmark, and died suddenly at Dresden, Oct. 3, 1826. His best productions are his smaller poems and songs, several of which are very popular with his countrymen. His *Seasons*, in Danish, are much esteemed. In 1827, a humorous poem of his, *Adam and Eve*, in German, was published at Leipsic.

BAGNIO (*Italian*, a bath). This name is particularly given to that place, near Galata, in the suburbs of Constantinople, where slaves are kept. There are one Greek and two Catholic churches for the use of the slaves.—Enclosures for slaves, in Turkey and Barbary, are, in general, called *bagnios*.

BAGPIPE; a well-known wind instrument, of high antiquity among the northern nations, which has so long been a favorite with the natives of Scotland, that it may be considered as their national instrument. It consists of two principal parts: the first comprises a leather bag, which receives and holds the wind conveyed to it by a small tube, furnished with a valve, to prevent the wind from returning. The second part of the instrument consists of three pipes;—the great pipe or drone; a smaller pipe, which emits the wind at the bottom; and a third with a reed, through which it is blown. The wind is forced into the pipes by compressing the bag under the arm, while the notes are regulated, as in a flute or hautboy, by stopping and opening the holes, which are eight in number, with the ends of the fingers. It is not known when the bagpipe first found its way into Scotland, but it is probable that the Norwegians and Danes first introduced it into the Hebrides, which islands they long pos-

sessed. In Rome, at the time of Advent, the peasants of the mountains play on the bagpipe before the images of the Virgin. The music is very simple, and yet sweet; and every traveller remembers it with delight.

BAHAMAS, or LUCAYA ISLANDS; in the Atlantic, near the east coast of North America. There are a great number of these islands, some say 500; but many of them are mere rocks, and others, on account of the difficulty of the navigation, little known. The principal are, Bahama, Eleuthera, Abaco, Yuma or Exuma, and Providence. They are in general fertile, with a soil similar to South Carolina. Lon. 73° to 81° W.; lat. 22° to 27° N. These islands, in 1773, contained 2,052 whites, and 2,241 blacks; and, in 1803, 14,318, including 11,395 blacks and people of color. The inhabitants are of two descriptions, the residents and the wreckers. The residents are chiefly loyalists, and their descendants, who emigrated from Carolina and Georgia, at the close of the American war. The wreckers are constantly employed in the business of rescuing shipwrecked vessels, with their crews and cargoes, from the waves. They sail in small, flat-bottomed sloops, just fitted for the seas which they navigate. They are excellent sailors; are familiar with all the keys, shoals and breakers; and, with alacrity and courage, encounter any danger or hardship. They are licensed by the governor, and receive salvage on all property rescued from the waves. By day they are always cruising; at night, they usually put into the nearest harbor. Their great places of rendezvous are the Florida gulf, the Hole in the Wall, and the Hogsties. The number of these vessels is very great, 40 sail being sometimes seen in one inlet. These islands are heaps of limestone and shells, covered with vegetable mould. The keys are chiefly rocky and sandy: on some of them a few trees are found. All the large islands that front directly upon the Atlantic stretch from south-east to north-west, and the ridge of each is in the same direction. The soil of all the islands is a thin, but rich, vegetable mould. It yields, for a few years, luxuriantly, but is soon exhausted. The chief production is cotton. The first discovery of these islands was made by Columbus, Oct. 12, 1492, when he fell in with Guanahani. New Providence, one of the largest of the group, was discovered on the 17th of the same month. In 1667, Charles II of England granted all the Bahamas to the duke of Albemarle and the other proprietors of Carolina.

Five years after this grant, the first settlement was made on New Providence. For many years, the inhabitants suffered severely from the depredations of pirates and of their Spanish neighbors. The celebrated Black Beard, or John Trench, was the leader of the buccaneers. He was killed off the coast of North Carolina, in November, 1718. The islands were soon afterwards abandoned by the pirates, and a permanent settlement made at Nassau, in New Providence, under governor Rogers. The town was fortified in 1740. Early in the American war, it was taken by the Americans, but speedily abandoned. The Spaniards took it again in 1781, but the English soon repossessed themselves of it. Since that period, all the islands have continued under their jurisdiction.

Bahama; the chief of the Bahama islands, which gives its name to the whole; 63 miles long, and about 9 wide; 57 miles from the coast of East Florida; lon. $78^{\circ} 10'$ to $80^{\circ} 24'$ W.; lat. $26^{\circ} 40'$ to $27^{\circ} 5'$ N. Though this island is well watered, the soil fertile, and the air serene, yet it is inhabited only by a few people, who subsist by selling necessities to ships, which the currents drive on their coasts. It formerly produced guaiacum, sarsaparilla and red-wood; all which the Spaniards are said to have destroyed.

BAHAR (more properly *Bihâr*, from the Sanscrit *Vihâr*, a Budd'hish monastery); the second province of the British dominions in India; bounded E. by Bengal, N. by Nepal and Morung, S. by Orissa, and W. by Oude and Allahabad; lon. between 84° and 88° E.; lat. between 22° and 27° N. The population is estimated at 5,800,000; three Hindoos to one Mohammedan. B. contains 51,973 square miles, of which about 26,000 are plain arable ground. It is one of the most fertile, highly-cultivated and populous countries of Hindostan, producing grain, sugar, tobacco, cotton, rice, opium, betel, saltpetre, timber, &c. It is now divided into seven collector-ships. The climate of B. is more temperate than that of Bengal. The Ganges, the Soane, the Gunduck, the Dummoodah, Caramnassa and the Dewah are the most remarkable of its rivers. The chief towns are Patna, Monghyr, Buxa, Rotas, Gayah, Dinapoor and Boglipoor. The inhabitants excel the Bengalese both in strength and stature.—*Bahar Proper* is one of the seven districts into which B. is divided. Square miles, 6680.—*Bahar*, the capital of this district, 220 miles N. W. Calcutta, lon. $85^{\circ} 45'$ E., lat. $25^{\circ} 14'$ N., is remarkable for the number of mag-

nificent funeral monuments which it contains.

Bahar, or *Barre*; weights used in several places in the East Indies. They have been distinguished as the *great bahar*, with which are weighed pepper, cloves, nutmegs, ginger, &c., and the *little bahar*, with which are weighed quicksilver, vermilion, ivory, silk, &c. But this weight varies much in different parts of the East.

The bahar of Acheen, in Sumatra, consists of 100 cattees, and is = 490 lbs. avoirdupois.

" " of Bellefackee, in Arabia, consists of 40 farcels, is = $81\frac{1}{2}$ lbs. avoirdupois.

" " of Bencoolen = 560 lbs. avoirdupois.

" " of Junkseylon = 8 capins, = 485 lbs. 5 oz. $\frac{1}{2}$ dr. avoirdupois.

" " of Malacca = 3 pecals, = 405 lbs. avoirdupois.

" " of Mocha = 15 franks, = 445 lbs. avoirdupois.

BAHIA, formerly *St. Salvador*, till 1771 the capital of Brazil, is situated on the bay of All Saints, in $12^{\circ} 59'$ S. lat., and $37^{\circ} 23'$ W. lon. It is strong by nature, and is also fortified. It has 13,000 houses, and about 100,000 inhabitants, among whom are 40,000 whites: the rest are mulattoes and negroes. It is the seat of an archbishop, and contains a university; has a very healthy climate, as well as one of the best harbors in Brazil; carries on an active trade with the U. States and Europe, and pursues the whale-fishery near the south pole. The exports are the productions of the tropics—Brazil-wood, spices, southern fruits, rice, tapioca, cattle, sugar, tobacco, cotton and coffee (cheaper than that of Rio Janeiro, but inferior, because the soil is too rich for the coffee-tree). Gold and diamonds are also secretly exported.—The government of this name (54,649 square miles, 560,000 inhabitants), on the river San Francisco, is crossed, from north to south, by the mountains Erio and Champado. It has its name from the bay on which the capital, described above, is situated. Sugar and coffee are raised here in large quantities, and the soil is esteemed the best in Brazil for the growth of the sugar-cane.

BAHRDT, Charles Frederic, a German theologian, born in 1741, at Bischofswerda, in Saxony, studied in Schulpforte and Leipsic. He was endowed with great talents, and made himself known very early, but was probably spoiled by this very success. In 1762, he was appointed professor in the university of Leipsic. His works and his talents as a preacher procured him many admirers, but, in consequence of an irregularity, he was obliged to quit that city in 1768. From this time

he led an unsettled life. He was successively professor of theology and preacher in Erfurt (where he was made doctor of theology), in Giessen, Switzerland and in Turkheim, but was obliged to leave each of these places, on account of his severe attacks on the clergy, and the heterodox views manifested in his writings and sermons, as well as on account of his irregular life. The aulic council declared him disqualified to preach or to publish, unless he would revoke the religious principles advanced in his works. At length he found an asylum in the Prussian dominions. In 1779, he went to Halle, where he published his Creed. It is thoroughly deistical, denying the miracles, and not insisting on the immortality of the soul. He lectured in Halle, but soon became involved in difficulties with the clergy; upon which he left the city, and established, in a neighboring vineyard, a public house, where he had many customers. But two works which he wrote against the Religious Edict (a miserable law, issued under the late king of Prussia, a man who was governed by mistresses, and believed in apparitions), in one of which he proposed a union of all religions, made him suspected. He was condemned, and confined in the fortress of Magdeburg. Here he wrote his life. At the end of a year, he again opened his public house at Halle, and died in 1792. B. wrote and spoke with ease and fluency, but his works, even the most learned of them, are wanting in thorough knowledge; yet they have certainly had some influence.

BAIADEER. (See *Bayadeer*.)

BAIÆ. This Campanian Brighton (*Nilus in orbe sinus Baiis præluet amenis*, Horace), once the place where the wealthy Romans had their country-seats, the favorite abode of the Ambubaie and the Balatrones, is now deserted, and interesting to the stranger only for the ruins of old baths, which are shown as temples, and for the remains of former palaces, visible beneath the waves of the sea. B. owes its fame to its hot baths, and its situation on a most charming bay, secured, by surrounding hills, from the violence of the winds. "Even before the time of Cæsar," says Wieland, in his remarks on the 15th epistle of the first book of Horace, "Baie was the place where the rich Romans thought themselves entitled to lay aside the restraint of republican hypocrisy, and to give themselves up, without shame, to the pleasures and voluptuousness which brought this charming place into such ill-repute, that Propertius

was impatient to call his mistress away from it, and Cicero, in his defence of the young M. Cælius, thought it necessary to apologize for defending a man who had lived at Baie." Its insalubrity, of which there are intimations even in the letters of Cicero, may have been occasioned partly by the vapors of its hot springs, but is now increased by the desertion of the country, and the stagnation of the ditches used for steeping flax. Yet the charm of its situation still survives, though only single fishing-boats are seen on its bay, to call to mind the fleets, which, starting from the Julian and Misenian lakes, passed by the islands, within sight of Puzzuoli.

BAIKAL; a lake or inland sea in Siberia, 360 miles long, from S. W. to N. E., and from 20 to 53 in breadth, interspersed with islands; lon. 104° to 110° E.; lat. 51° 20' to 55° 20' N. It contains a great many fish, particularly sturgeons, pikes and seals. In the environs are several sulphurous springs, and in one part, near the mouth of the river Barguzin, it discharges a kind of pitch, which the inhabitants purify. The water is sweet, transparent, and appears, at a distance, green, like the sea. It receives the waters of the Upper Angara, Selinga, Barguzin, and other rivers; but the Lower Angara is the only one by which it seems to discharge its waters. Nothing can be conceived more interesting and magnificent than this lake. Those who have visited it seem at a loss for language adequate to describe the feelings which it excites when first beheld. It is enclosed by rugged mountains, and the sublime scenery around strikes every beholder with astonishment and awe. At some seasons, it is so agitated by violent storms, that, in the tremendous roaring of its billows, it equals the mighty ocean, while, at others, the clearness of its unruffled bosom emulates the lustre of the finest mirror.

BAIL is, in one of its senses, the delivery of a person to another for keeping, and is used in reference to one arrested, or committed to prison, upon either a civil or criminal process; and he is said to be *bailed*, when he is delivered to another, who becomes his surety in bonds (to a greater or less amount, according to the amount of the demand for which he is sued, or the heinousness of the crime with which he is charged), for his appearance at court to take his trial. Bail is either *common* or *special*; the former being merely fictitious, whereby nominal sureties, as John Doe and Richard Roe, are

feigned to be answerable for the defendant's appearance at the court to which he is cited. Special bail is that of an actual surety. The laws of the U. States, and of the several states, allow of bail to be given in all civil processes, whatever may be the amount of damages which the defendant may be called upon to answer in the suit; and the jealousy of personal liberty, so congenial to the American institutions, has introduced a provision into some of the constitutions, that excessive bail shall not, in any case, be demanded; and when the defendant, or party charged with a crime, for which he is arrested, considers the bail demanded to be excessive, he may, by *habeas corpus*, or other process or application, according to the provisions of the laws under which he is arrested, have the bond reduced to a reasonable amount. In respect to bail, the act of congress, 1789, c. 20, s. 33, provides that, "upon all arrests, in criminal cases, bail shall be admitted, except where the punishment may be death, in which case it shall not be admitted, except by the supreme or circuit court, or by a justice of the supreme court, or a judge of the district court, who shall exercise their discretion therein." The laws of the several states are generally equivalent, or substantially so, to this act of congress, on the subject of bail. The party bailed is considered to be in the custody of his bail or sureties, who may seize and deliver him up to the court, and thus discharge themselves from their responsibility.

BAILIFF. In the court of the Greek emperors there was a *grand bajulos*, first tutor of the emperor's children. The superintendent of foreign merchants seems also to have been called *bajulos*, and, as he was appointed by the Venetians, this title (*balio*) was transferred to the Venetian ambassador. From Greece, the official *bajulos* (*ballivus*, *bailli*, in France; *baillif*, in England), was introduced into the south of Europe, and denoted a superintendent: hence the eight *ballivi* of the knights of St. John, which constitute its supreme council. In France, the royal bailiffs were commanders of the militia, administrators or stewards of the domains, and judges of their districts. In the course of time, only the first duty remained to the bailiff; hence he was called *bailli d'épée*, and laws were administered in his name by a lawyer, as his deputy, *lieutenant de robe*. The seignories, with which high courts were connected, employed bailiffs, who thus constituted, almost every where, the lowest order of

judges. From the courts of the nobility, the appellation passed to the royal courts; from thence to the parliaments. In the greater bailiwicks of cities of importance, Henry II established a collegial constitution, under the name of *presidial courts*. As all offices of justice could be purchased, and, in the lower courts, no examination was required (only the counselors in the presidial courts were to be 25 years of age, licentiates of law, and be examined by the chancellors), and as the bailiwicks were generally very small, this kind of jurisdiction fell into great contempt. The bailis had become a standing subject of ridicule on the stage, for their ignorance, their ridiculous presumption, their deceit and injustice. The royal bailiwicks, therefore, by an order of Sept. 1, 1770, were reformed; the jurisdiction of the nobles was first abolished by the laws of Aug. 4, 1789, and supplied by the district courts, *tribunaux de première instance*.—The name of *bailiff* was introduced into England with William I. The counties were also called *bailiwicks* (*ballivæ*), while the subdivisions were called *hundreds*; but, as the courts of the hundreds have long since ceased, the English bailiffs are only a kind of subordinate officers of justice, like the French *huissiers*. These correspond very nearly to the officers generally called *constables* in the U. States. Every sheriff has some of them under him, for whom he is answerable. In some cities, the highest municipal officer yet bears this name, as the high bailiff of Westminster. In London, the lord mayor is at the same time bailiff (which title he bore before the present became usual), and administers, in this quality, the criminal jurisdiction of the city, in the court of Old Bailey, where there are, annually, eight sittings of the court, for the city of London and the county of Middlesex. Usually, the recorder of London supplies his place as judge.—In some instances, the term *bailiff*, in England, is applied to the chief magistrates of towns, or to the commanders of particular castles, as that of Dover. The term *baillie*, in Scotland, is applied to a judicial police officer, having powers very similar to those of justices of peace in the U. States.—Among the Teutonic order of knights, and in the German division of the knights of St. John, the dominions of the order, and with them the knights, were divided into districts (*bailiwicks*), over each of which a commander presided. The single houses of the order were called *commanderies*.

BAILLOT, Pierre, one of the chief masters of the modern French school of violinists, born in 1771, studied under Viotti, was employed in the chapel of the duke of Artois in 1791, and became, in 1803, teacher in the conservatory. From 1805 to 1808, he travelled in the north of Europe, and acquired an extensive musical fame, in which he rivals Kreutzer and Rode. His style is bold and original. He is one of the chief contributors to the Violin School, printed for the use of the conservatory in Paris, under the title *Violin School, by Rode, Kreutzer and Baillot*. His *Exercices pour le Violin* are a continuation of this. He has also published, together with Levasseur, Catel and Baudiot, another Violin School, for the use of the conservatory, and accompanied it with exercises.

BAILLY, Jean Sylvain; born at Paris, 1736. Though designed by his father, keeper of the royal gallery of pictures, for a painter, he followed his natural inclination for literature. His first attempts were in poetry. Becoming afterwards acquainted with Lacaille, he was induced by his instructions and example to devote himself to astronomy. After the death of Lacaille, in 1763, he entered the academy, and published the calculation of a great many of Lacaille's observations on the stars of the zodiac. He undertook, also, at this time, a great work on the satellites of Jupiter, the theory of which the academy had made a prize question. His *Essai sur la Théorie des Satellites de Jupiter, avec des Tables de leurs Mouvements*, appeared in 1766. In 1771, he published a treatise on the light reflected by the satellites of Jupiter, which he undertook to measure by an ingenious process. Amidst these laborious occupations, he never lost his love of literature. His eulogiums on Pierre Corneille, Leibnitz, and others, were so favorably received, that he resolved to select a scientific subject, susceptible of the ornaments of style, which might secure his literary fame. He chose the History of Astronomy (1775 to 1787, 5 vols. quarto). It met with general approbation, which was increased by the discussions that succeeded, between the author and Voltaire, which led B. to publish his *Lettres sur l'Origine des Sciences, et sur l'Atlantide de Platon*. In 1784, the French academy elected him a member, in the place of Tressan, and, in 1785, he was admitted into the academy of inscriptions. The government also made him a member of the committee for examining the character and influence of animal

magnetism, discovered by Mesmer. B. delivered a double report on this subject, one for the public, to give it a just view of the doctrine, the other for the king alone, on the real causes of magnetism, and its moral influence. The latter was not published till a later period.—B. was now enjoying the general esteem due to merit and to virtue, when the revolution tore him from his peaceful pursuits. Paris chose him, May 12, 1789, first deputy of the *tiers-état*; in the assembly itself, he was made first president. He retained this place after the commons had declared themselves a national assembly; and when the king forbade them to assemble, he presided, June 20, 1789, in the session of the tennis-court, when all the deputies swore never to separate till they had given France a new constitution. Being chosen mayor of Paris, July 16, he discharged the duties of his office with his usual integrity and disinterestedness; but these virtues were not sufficient to restrain a furious populace, exposed by turns to the influence of opposite parties. The palliatory measures employed by B. to preserve the appearance of tranquillity might delay the eruption, but could not suppress it; perhaps matters had arrived at such a point, that even the most vigorous resistance would have been ineffectual. Once only, and on the most just occasion, he had recourse to rigorous measures. This was after the return of the king from Varennes. The violent revolutionists wished to seize this opportunity for his deposition, and a great number of them assembled, July 17, 1791, in the Champ-de-Mars, in order to sign, upon the altar of their country, a petition to this effect. B., accompanied by the national guards, commanded the rebels to disperse, and, on their refusal, dispersed them by force. The national assembly approved of his conduct; nevertheless, he resigned his place, Sept. 19, 1791. Petition (q. v.) became his successor. B. retired entirely from public affairs to the country in the vicinity of Nantes. When the increasing troubles left him no security even here, his friend Laplace offered him a shelter in his own house at Melun. In the mean time, by the events of May 31, 1793, circumstances were changed, and a division of the revolutionary army entered Melun. Laplace informed B. of this danger, but, unfortunately, he did not regard the warning, but persisted in going to Melun. As soon as he entered this place, he was known. He was sent to Paris, where, Nov. 11, 1793, he was condemned

to death by the revolutionary tribunal, and executed on the 12th, with circumstances of great cruelty. He died with the utmost composure. His crimes were, his conduct on the Champ-de-Mars, and the boldness with which he had declared the accusations brought against the queen false and calumnious. His posthumous works are, *Essai sur l'Origine des Fables, et des Religions Anciennes*, and his *Journal* during the early period of the revolution, from April 21 to Oct. 2, 1789 (3 vols. 1804).

BAILMENT, in law, is the delivery of a chattel or thing to another to keep, either for the use of the bailor, or person delivering, or for that of the bailee, or person to whom it is delivered. A bailment always supposes the subject to be delivered only for a limited time, at the expiration of which it must be re-delivered to the bailor; and the material inquiries, in cases of bailment, relate to the degree of responsibility of the bailee in regard to the safe-keeping and re-delivery of the subject of the bailment. This responsibility will depend, in some degree, upon the contract on which the bailment is made. If a thing is delivered to the bailee to keep, without any advantage or use to himself, or any compensation, but merely for the benefit of the bailor, he is answerable only for gross negligence; but if the bailment is for the mutual benefit of both parties, the thing must be kept with the ordinary and usual care which a prudent man takes of his own goods; but if it be delivered for the benefit of the bailee only, he must exercise strict care in keeping it, and will be answerable for slight negligence. A special agreement is made in many cases of borrowing or hiring, specifying the risks assumed by the borrower or hirer; and, in such case, his obligations will be determined by his stipulations. Pledging and letting for hire are species of bailment.

BAIRAM, or **BEIRAM**; the Easter of the Mohammedans, which follows immediately the Rhamazan or Lent (a month of fasting), and lasts three days. This feast begins, like the Rhamazan, as soon as the new moon is announced by the persons appointed for that purpose, and, during the course of 33 years, takes place in all the seasons and all the months of the year, because the Turks reckon by lunar years. It is the custom, at this feast, for inferiors to make presents to their superiors. This custom formerly extended even to the Europeans, who were obliged to make presents to men of rank, to the pachas

and the cadis. The grand seignior is also accustomed to distribute favors and presents. Sixty days after this first great Bairam, begins a second—the lesser Bairam. They are the only two feasts, the celebration of which the Mohammedan religion prescribes to the faithful.

BAIRDSTOWN; a post-town of Kentucky, and capital of Nelson county, on Beech Fork river; 35 miles S. W. Frankfort, 60 W. S. W. Lexington; lon. 86° 10' W.; lat. 37° 49' N.; population in 1810, 820. It contains a court-house, a jail, a market-house, a church, and a flourishing Roman Catholic college, styled the college of St. Joseph, which is under the care of the Roman Catholic bishop of Kentucky, and has about 200 students. The college edifice is of brick, four stories high.

BAIUS, or **DE BAY**, Michael, born 1513, at Melin, in Hainau, educated at Louvain, in 1551 made professor of theology at this university, in 1563 or 1564 chosen a member of the council of Trent, was one of the greatest theologians of the Catholic church in the 16th century. He founded systematic theology directly upon the Bible and the Christian fathers, leaving the scholastic method. He had read the writings of St. Augustine nine times, and had fully adopted the views of that father, whose doctrines of the entire incapacity of the human will for good, and the insufficiency of good works, he first maintained against the less rigid notions of the Jesuits. The doctrines that the human will, when left to itself, could only sin; that even the mother of Jesus was not free from hereditary and actual sin; that every action, which did not proceed from pure love to God, was sinful; and that no penance was effectual for the justification of the sinner, but every thing was to be attributed solely to the grace of God, through Christ,—caused him to be persecuted as a heretic by the old Scotists, and, in particular, by the Jesuits, who, notwithstanding the favor in which he stood at the Spanish court, at length succeeded in obtaining a papal bull, in 1567, condemning these doctrines, with others falsely imputed to him. B. submitted; yet the persecutions against him still continued, as did also his defence of the opinions of Augustine in his lectures; and, as the theological faculty at Louvain was entirely in his favor, he not only remained in the quiet possession of his dignities, but was also appointed dean of St. Peter's, in 1575, and, in 1578, chancellor of the university; nay, the king of Spain conferred upon him the office of

inquisitor-general in the Netherlands. He died in 1589, and left the reputation of great learning, pure morals, and a rare modesty. His Augustinian views, which were called then *Baianism*, descended to the Jansenists (as the precursor of whom he is to be regarded), and, in their hands, received an interpretation formidable to Jesuitism and to the papal power. His doctrine of pure, undivided love to God has been adopted by the Quietists. His writings, mostly polemical, were published by Gabriel Gerberon, at Cologne, 1696, quarto.

BAJAZET I, Turkish emperor, in 1389, succeeded his father, Amurath, who fell in the battle of Cassova against the Servians. He caused his elder brother, Jacob, his rival for the throne, to be strangled—an act of barbarity, which, since his time, has become a custom at the Turkish court. He made great and rapid conquests. Hence his name, *Ilderim*, the Lightning. In three years, he conquered Bulgaria, part of Servia, Macedonia, Thessaly, and subjected the states of Asia Minor. He besieged even Constantinople for ten years, and hoped to starve it into a surrender. In order to save the city, king Sigismond of Hungary (afterwards emperor of Germany) assembled a great army (including a number of French troops and 2,000 noblemen, under the command of the duke of Nivey), and attacked the city of Nicopolis, in Bulgaria, situated near the Danube. But B. met them, and obtained a decisive victory over the allied Hungarians, Poles and French, 28th Sept., 1395. Sigismond escaped, by a hasty flight, in disguise. The French, by whose imprudent impetuosity the battle was lost, were most of them taken prisoners, and executed by the order of B. He would probably have now overturned the whole Greek empire, if Timur (see *Tamerlane*) had not attacked Natolia, in 1400. B. marched to meet him, and suffered a total defeat near Ancyra, in Galatia, June 16, 1402. He himself fell into the power of the conqueror, who treated him with generosity. The story of his being carried about in a cage by Timur is without historical proof. B. died, in 1403, in Timur's camp, in Carmania. His successor was Soliman I.—**Bajazet II** succeeded his father, Mahomet II, sultan of the Turks, in 1481. He increased the Turkish empire by conquests on the north-west and in the east, took Lepanto, Modon and Durazzo, in a war against the Venetians, and ravaged the coasts of the Christian states on the Mediterranean, to

revenge the expulsion of the Moors from Spain. At home, he had to contend against his rebellious son Selim, to whom, at last, he resigned the empire. He died in 1512, on his way to the place which he had chosen for his retirement. It has been supposed that he was put to death by the order of his son. He was a man of uncommon talents, and did much for the improvement of his empire, and the promotion of the sciences.

BAKHUYSEN. (See *Backhuysen*.)

BAKKER, Peter Huysinga, a Dutch poet, born in 1715, died in 1801, was a member of the academy of sciences at Leyden. His poem on the inundation of 1740 is much esteemed. All his works make three volumes, of which one volume contains satires and contemptuous songs against the Britons. He was a friend and relation of the Dutch historian Wagenaar, of whose life he published some notices. He translated Hight's Latin poem on Spring into Dutch.

BALALAIKA; a musical instrument, of very ancient Slavonian origin, common among the Russians, Tartars, and, according to Niebuhr, also frequent in Egypt and Arabia. It is of the guitar kind, but has only two strings.

BALANCE OF POWER. (See *Power*.)

BALANCE OF TRADE, a subject formerly so much discussed, is now rarely mentioned. The notion was once entertained, that the prosperity of a country depended on exporting merchandise exceeding the value of the imports, and receiving the balance in the precious metals. If a nation has no mines, it can obtain the precious metals only by importation. So far, therefore, there is some ground for the notion. But, in speculating on this subject, men fell into two errors—1, in supposing that any direct legislative interference was necessary, in respect to the precious metals; 2, in computing the balance of trade; for, if we compare the value of exports with that of imports received in exchange, the more profitable the trade is, the more the balance is against us; that is, the more will the value of imports, including the precious metals, exceed that of exports, if we estimate the value in our own markets; and there must be an excess equal to freight and charges, or it is a losing trade to those concerned. But any country may, in fact, have a balance of trade against it, provided it gets credit abroad; and that balance, consisting of the debts of individuals, may be embarrassing to the national industry as much as a private debt may be to a

debtor, who has either made a bad bargain, or has to struggle to obtain the means of making payment. This subject of the balance of trade was not understood in the U. States until 1824, when the tariff of that date was under discussion.

BALANCING; among seamen, the contracting a sail into a narrower compass, in a storm, by folding up a part of it at one corner, by which it is distinguished from reefing. Balancing is peculiar to few sails.

BALBEC, or BAALBEC; the ancient *Heliopolis* (city of the sun), in Cœlosyria, in the pachalic of Acre, in Syria, in a fertile valley at the foot of Antilibanus, 40 miles from Damascus; lon. 36° 11' E.; lat. 34° 1' N.; a small, meanly-built town, surrounded by ruinous walls, containing about 5,000 inhabitants, among whom there are some Christians and Jews. The city is under the government of an aga, who assumes the title of *emir*. Here are the finest ruins in the East, of which a society of English travellers, who visited B. in the middle of the 18th century, have given the most complete description. As early as the time of Augustus, Heliopolis had a Roman garrison. Whether the magnificent temple of the sun, a great part of which is still uninjured, and which is one of the most splendid remains of antiquity, was built by the emperor Antoninus Pius, or by Septimius Severus, upon whose medals it appears to have been first represented, is uncertain. Of 54 lofty columns, there are but 6 standing: their shafts are 54 feet high, and nearly 22 in circumference; and the whole height, including the pedestal and capital, is 72 feet. Excellent marble statues of Jupiter, Diana and Leda, and bass-reliefs and busts of Roman emperors and empresses, are yet to be seen. The size of the stones, with which the walls of the temple are constructed, is astonishing. No mechanical expedients now known would be able to place them in their present position. Under the emperor Constantine, this temple was neglected, and was changed into a Christian church. Thus it remained until after the irruption of the Arabians, when it fell to decay. The great palace, which Antoninus Pius is also said to have built, and several other temples, are of distinguished beauty. Obeidah, a general of the caliph Omar, captured the city, after a vigorous defence. In 1401, it was taken by Tamerlane. An earthquake almost entirely destroyed it in 1759.

BALBOA, Vasco Nuñez de; born about 1475; one of the Spanish adventurers who pursued the path which Columbus had pointed out, and sought to make their fortunes in America. The Spanish court granted them full permission to make discoveries, without giving them sufficient support. B., after having dissipated his fortune in Spain, went to America, arrived at the isthmus of Darien, and soon became the leader of a small troop of Spaniards. He succeeded in founding a colony in these regions, either winning the inhabitants by kindness, or subjecting them by force. A dispute having taken place between two of his companions, on the division of a quantity of gold, an Indian, who perceived the eagerness of the Spaniards for it, offered to show them a country where this metal was used for the meanest vessels. He led them to the coast of the Pacific ocean, where the way to Peru was open before them. B., however, ventured not to attack Peru with his troop of 150 men. He was satisfied with getting information, and with taking possession, in the name of the king of Spain, of the great ocean, the boundless plain of which was spread out before him. After four months, he returned to Darien, loaded with gold and pearls. Here he found a new governor, Pedrarias, whom he was commanded to obey by an order of Ferdinand. Though surprised at this ingratitude, he complied, and, in the following year, was appointed viceroy of the South sea. Pedrarias was apparently reconciled to him, but, soon after, under pretext of neglect of duty, ordered him to be tried and condemned to death. B. was beheaded in 1517, at the age of 42 years. Pizarro, who afterwards completed the discovery of Peru, had served under him.

BALCAN. (See *Balkan*.)

BALDE, Jacob, born at Ensisheim, in Alsace, in 1603, died, in 1668, at Neuburg, on the Danube. He was a Jesuit, a preacher at the court of the elector of Bavaria, and one of the most distinguished Latin poets among the moderns. He witnessed the melancholy scenes of the 30 years' war with a wounded heart. He relieved such as were expelled from their homes, and, at the same time, endeavored to awaken a better spirit among the Germans, and to excite them to valor, virtue and unanimity. An extensive and profound knowledge of the world, with a truly philosophical dignity of mind, are every where displayed in his poems. He will be admired in Germany in all

ages. Augustus William Schlegel says of him, "A deep, strong feeling, often combined with an ardent enthusiasm; an imagination from which strong and wonderful images spring forth in boundless profusion; an inventive fancy, always striking out original comparisons, in surprising forms; a penetrating judgment, which, when not blinded by partiality or early prejudices, catches the human character with a quick and piercing glance; great moral energy and independence; a bold security of genius, always choosing its own path, and not fearing even the most untrodden;—all these qualities are so strongly displayed in the works of Balde, that we are constrained to declare him an uncommon and richly-gifted poet."—His poems in the German language are insignificant. A collection of his poetical writings, consisting of lyric, elegiac, didactic, satirical and other poems, appeared, in 1660, at Cologne, in 4 vols., 12mo.; and at Munich, in 1729, 8 vols.; a selection by I. C. Orell, Zurich, 1805, second edition, 1818.

BALDWIN III, king of Jerusalem, from 1143 to 1162; a model of that chivalry which grew up in the period of the crusades, from the sentiments of honor, justice, devotion and love. The crusaders had established counts of Tripoli and Edessa, and princes of Antioch. The feudal dominions of the Christians extended as far as Tarsus and Cilicia; but the vassals of B. were always in rebellion against him, or engaged in conflicts with each other. Against them and the new hosts of crusaders, against the knights of St. Mary, the Templars and the Hospitallers, the Saracen heroes, Saladin, Nouredin, Zenghi and Seifeddin, fought with equal fanaticism and equal dissensions among themselves, but with better fortune. In the army of B. were sometimes seen Saracens, valiantly fighting under the banner of the cross. His unhappy reign was the last struggle to establish the Christian chivalry, the tournaments and the knightly orders in the East. With it fell the feudal constitution in that quarter, both civil and ecclesiastical. B. died not long before the total ruin of his kingdom; and when his great adversary, Nouredin, was advised to attack the dominions of the deceased during his funeral, he answered, "Let us respect their affliction; it is just; for they have lost a king such as is rarely to be found."

BALE, BASIL, or BASLE. (See *Basle*.)

BALE, COUNCIL OF. (See *Basle, Council of*.)

BALEARES; the name of the two islands in the Mediterranean, situated near the coast of Valencia, in Spain, Majorca (in Spanish, *Mallorca*) and Minorca (q. v.), which, together with the Pithyusian islands, Ivica and Formentera, formed the Spanish kingdom of Majorca, containing 1758 square miles, and 275,000 inhabitants. The Grecian name B. was given them because the inhabitants were famous for their skill in slinging. The Balearic slingers distinguished themselves in the army of Hannibal. In later times, the Romans took possession of both the islands; afterwards, the Vandals, under Genseric, and, in the 8th century, the Moors, from whom they were taken by James I, king of Arragon, 1220—1234. They then constituted a kingdom, which, in 1375, was united to Spain. The English conquered Minorca in 1708, lost it again in 1782, and relinquished it to Spain by the treaty of 1783.—Under the Romans, the B. belonged to the *conventus juridicus in Carthagine nova*.

BALEN, Hendrick van, and Jacob van; father and son; historical painters; the former born in 1560, the latter in 1611, both at Antwerp. The former died in 1632. Pictures by each are still extant, and considered valuable.

BALES, Peter, famous for his skill in penmanship, lived in the 16th century. Holingshed, in his chronicle, mentions the wonderful skill of B. in what may be termed *micrography*; and Evelyn more particularly states, that he wrote the Lord's prayer, creed, decalogue, two short Latin prayers, his own name, motto, day of the month, year of our Lord and of the reign of queen Elizabeth, to whom he presented it at Hampton court, all within the circle of a silver penny, encased in a ring and border of gold, and covered with a crystal, so accurately done as to be plainly legible, to the great admiration of her majesty, the whole privy-council, and several ambassadors then at court. He was very dexterous in imitating the hand-writing of others, on which account he was employed by sir Francis Walsingham, the queen's secretary of state; but, by involving himself in the conspiracy of the earl of Essex, he suffered imprisonment. He died about 1610. From a book which he published in 1590, entitled the "Writing Schoolmaster, in three Parts; the first teaching Swift Writing, the second True Writing, the third Fair Writing," it appears that he was acquainted with stenography. His talents were celebrated

by learned men in verse. We shall have a more just idea of his merits, if we consider the low state of penmanship at that time. All the manuscripts of that period extant are either miserably written, or have the appearance of drawings rather than writings.

BALESSAN; the Eastern name for that species of the *amyrus*, which produces the celebrated balsam of Mecca, the ancient balm of Gilead. This plant grows to the height of 14 feet, on a stony, barren soil. The balsam is a resinous matter, exuding, like ordinary resin, from incisions in the bark, in July, August and September. The balsam is used for many medicinal purposes, and the ladies in the East employ it as a means of beautifying the skin. Lady Montague tried it, and relates that she suffered for three days from its application, but that her complexion was greatly improved. The balsam of Gilead was renowned among the early Hebrews.

BALESTRA, Antonio; a historical painter of much reputation; born at Verona, in 1666; died, according to some, in 1720; according to others, in 1740.

BALIOI, **BALLIOI**, or **BAILLIOI**, John; king of Scotland. On the death of queen Margaret, being at the head of the English interest in Scotland, he claimed the vacant throne by virtue of his descent from David, earl of Huntingdon, brother to William the Lion, king of Scotland. Robert Bruce opposed Baliol; but, having submitted to the arbitration of Edward I, the decision was in favor of Baliol, who did homage to him for the kingdom, Nov. 12, 1292. Baliol, however, did not long enjoy the crown, for, having remonstrated against the power which Edward assumed over Scotland, he was summoned to his tribunal as a vassal. Irritated at this, Baliol concluded a treaty with France, on which a war with England immediately commenced; and, after the battle of Dunbar, he surrendered his crown into the hands of the English monarch, who sent him and his son to London, to be imprisoned in the Tower. The pope interceded for them, and they were liberated, and committed to his legate, in 1297. Baliol retired to his estate in France, where he died in 1314.

BALISTÆ, or **BALLISTÆ**; a kind of machines for besieging, or attacking the besiegers, in use among the ancients, by which heavy stones, also arrows and other weapons, were thrown; and even burning substances and dead bodies, by the besiegers. Many of the ancient writ-

ters confound the *balistæ* with the *catalpultæ*, but Polybius makes a difference, using the latter word only for those machines which threw stones. The mechanism of these machines is not quite clear. There is a third name for a kind of these machines—*onager*. The weight of the stones thrown was from 10 to 300 pounds. Sometimes a large quantity of stones was thrown at once. A clear idea of these instruments cannot be formed without the study of treatises on the arms and warfare of the ancients.

BALIZE; a sea-port of Mexico, in Yucatan, at the mouth of the river Balize. Vessels of burden cannot come near the town, on account of a bar in the river. It is the only settlement of consequence, belonging to the British, on the coast, and consists of about 200 houses, built of wood. The chief trade is in logwood and mahogany.

BALK; the ancient *Bactria*. (See *Afghanistan*.)

BALKAN (anciently called *Hæmus*); a lofty and rugged chain of mountains, extending from cape Emineh Burum, on the Black sea, in European Turkey, to cape San Stefano, in the Adriatic sea, from 23° to 27° E. lon. Near Sulu Derbent (Porta Trajani), this mountain, called, by the Turks, *Emineh Slag*, separates from Rhodope, and divides the valley of the Danube, which constitutes Bulgaria, (inhabited mostly by wandering tribes), from Romania, or Rumelia. A branch extends from north to south (mount Athos); another runs through ancient Greece, and comprehends the mountains Olympus, Ceta, Pindus, Parnassus, Helicon. The highest peak, Orbelus, rises 9000 feet above the surface of the sea. After the overthrow of the empire in Constantinople, only the Greeks of the plains and the sea-coast submitted to the Mussulmans. The warriors, and those who had no landed property, fled into the mountains, into the *armatolics*, and have, in general, maintained a continual contest with the pachas of the plain: some have paid a small tribute to the Turkish pacha, and some have become Mohammedans. The districts where the Catholic is the prevailing church, contain the wildest inhabitants, and have never been subjected to the emperors of Constantinople for any length of time.

BALL. Ball-playing was practised by the ancients, and old and young amused themselves with it, particularly in the *thermæ*. The Greeks and Romans had four kinds of balls. One was of leather,

filled with air, and consequently similar to our foot-ball; the second, a leathern ball, which was thrown on the earth, and after which many ran at once; the third, a small ball, similar to our shuttlecock, which three persons, placed in a triangle, struck towards each other; the fourth was thickly stuffed with feathers, and used particularly in the country. In a Roman villa, a *spheristerium* (a place appropriated for playing ball) was always to be found. In the middle ages, there were houses appropriated to ball-playing. In these, certain persons were employed to pick up the balls of the players, who, in France, were called *nanquets*, and, in later times, *marqueurs*. In Italy, there are still public places, where people play with large balls, which they strike with a kind of wooden cylinder, fastened round their wrists, to an immense height. The spectators often pay for admission to the spectacle, and, in some cities, the players form a company. From what we have seen in different countries, we think the national German ball-play the most interesting, and the one which affords the best exercise.

BALLAD; a short epic song, (from the Italian *ballata*, an old kind of song), of an entirely lyric nature. *Ballata* is derived from *ballare*, to dance, probably from the German *wallen* (pronounced *vallen*), which signifies a waving motion. Though the name is Italian, the species of poetry which we now understand under the word *ballad*, belonging to England and the other northern nations of Europe, is of Teutonic origin, at least Percy and Bouterweck agree in this, and Frederic Schlegel, in his History of Ancient and Modern Literature (Vienna, 1815), seems to be of the same opinion. The word *ballata* passed from the Italians to the Provençales, from whom the Normans took it, and carried it to England, where it was applied to short songs, particularly to the most popular ones, which were short tales in verse, describing the deeds of heroes, the adventures of lovers, &c. If we wish to trace the English and Scottish ballad to its origin, we must have recourse to those songs which existed among the inhabitants of the island before the Norman conquest, and were of a kind common to all the Teutonic nations. It is related of king Alfred, that he sung in the camp of the Danes. All the Scandinavian nations delighted in songs celebrating the deeds of heroes, or describing the passions and adventures of lovers; and the three great divisions or cycles of the Teu-

tonic poetry of the middle ages,—the stories of the Nibelungen, those of Charlemagne (particularly such as relate to his war against the Arabians and the battle of Roncesvalles), and the tales of king Arthur's round table,—consist of what, at a later period, were called *ballads*. The true home of the English ballad is the northern part of England (the North Country) and the southern part of Scotland, where the influence of the Normans was less than in the south of England. Those Normans who settled in these parts despised the native poetry, which they did not understand; and thus it was left entirely to the people, and retained, for that reason, its simple and popular character, even after it grew into esteem among the descendants of the Norman conquerors. The feudal wars of the Norman knights, and their highly chivalric spirit, which flourished in England as long, and in as much purity, as in the southern countries of Europe, afforded new subjects to the ballad, and contributed to modify its character. The minstrels were accustomed to sing the deeds of their ancestors, with all the additions which a lively imagination dictated. They soon commemorated, in the same way, the achievements of their contemporaries, and now the *ballad*, properly so called, originated. The former *bards* became *minstrels*, who, in connexion with the *jongleurs*, or *jougleurs* (resembling the modern *jugglers*, who have derived their name from them), waited upon the barons, like the French *menetriers*, devoting themselves to their amusement, and receiving, in return, pecuniary rewards and hospitable entertainment. (*Minstrel* and *menetrier* are both derived from the Latin *ministerialis*.) As the popular poetry of the first centuries after the Norman conquest did not acquire a literary reputation, and probably was never committed to writing, it is not to be wondered at, that the oldest poems of a mixed Norman and Anglo-Saxon character, which are preserved in MSS., are either imitations of French poetry, or religious songs, such as were found among other nations of Europe in the middle ages. A little poem on spring is almost the only one of genuine Saxon origin, which has, as yet, been printed from MS. Warton has published it in the additions and emendations which belong to vol. 1 of his History of English Poetry. It begins, *Sumer is i-cumen*. The earliest of the English ballads which have been preserved cannot be considered antecedent to the 14th century; and we

cannot speak with certainty of the origin of many which appeared before the 15th. We have said that the ballad above described is properly of Teutonic origin; we ought to mention, however, that the Spaniards, and they only, among the southern nations of Europe, have songs of equal age and merit with the English ballads. The principal difference between them is, that the Spanish romance is in trochaic, the English ballad in iambic, metre. The different character of the nations has also produced some diversity in the tone of sentiment and feeling. At the time when this kind of poetry flourished in the two nations, they had very little intercourse with each other, and the similarity of the forms which it assumed can be explained only by an accidental similarity of causes. (For further information on the history of the English ballad, we must refer the reader to Percy's *Reliques of Ancient English Poetry*; Warton's *History of English Poetry*; Dr. Burney's *History of Music*, and vol. vii. of Bouterweck's *History of Poetry and Eloquence since the End of the 13th Century*.—For information respecting the Spanish ballad, or *romance*, as it is called by the Spaniards, see the article *Romance*.) The French poetry of this kind never reached any high degree of perfection, because their *fabliaux*, legends, &c., soon degenerated into interminable metrical and prose romances of chivalry. In Italy, the ballad never flourished: the poetry of that country has always retained a certain antique spirit, and the Italians never partook, to any great extent, in the crusades, being fully occupied at home in the wars of the free cities. The Portuguese never cultivated the ballad much. Almost all their poetry of this kind is to be traced to a Spanish origin. The German ballad never became so popular as the English, nor was so much cultivated as the Spanish. The Russians have lyric-epic poems, of which some, in old Russian, are excellent. Of the ballads of modern times, the German are the best. Many of these are the productions of the first writers of the country—Göthe, Schiller, Bürger, &c. The best observations within our knowledge, on the character of the ballad, and what it requires, is to be found in Frederic von Schlegel's *Kritische Schriften* (on Bürger).

BALLAST (from the Danish *baglast*) is a load of sand or stones, deposited in ships, which have not freight enough to sink them to their proper depth in the water, so as to resist the wind and waves. In

storms, if the vessel leaks, part of the ballast must often be thrown out, to make the vessel lighter. By the English navigation act, and by the laws of other commercial nations, formed by way of retaliation, vessels are often obliged to take ballast, either on their departure or return, instead of transporting, even at little profit, heavy and cheap goods of the country, to foreign countries.

BALLET (from *bal*; hence the French *baller*, and the Italian *ballare*, to dance); in its widest sense, the representation of a series of passionate actions and feelings, by means of gestures and dancing. According to this signification, we comprehend, under ballets, even representations of mental emotions, not connected with a regular train of action. In a more confined sense, we call ballets musical pieces, the object of which is to represent, by mimic movements and dances, actions, characters, sentiments, passions and feelings, in which several dancers perform together. According to the analogy of lyrical poetry, those which rather represent feelings may be called *lyrical ballets*; those which imitate actions, *dramatic ballets*. The lyrical and dramatic ballets, together, constitute the higher art of dancing, in opposition to the lower, the aim of which is only social pleasure. The dramatic ballets are divided into *historical*, the subject of which is a real event; the *mythological*, in which the subject is some fabulous action; and the *poetical*, which are founded on poetical fiction, to which belong, also, the *allegorical*, necessarily the most imperfect. A ballet is usually divided into several acts, each of which has several *entrées*. An *entrée*, in a ballet, consists of one or several quadrilles of dancers, who, by their steps, gestures and attitudes, represent a certain part of the action. In criticising a ballet, we must consider, first, the choice of the subject, which must have unity of action or of passion, and must be capable of being represented in an intelligible manner by means of mimic movements and dancing; secondly, the plan and execution of the single parts, which must have a due proportion to each other; and, finally, the music and decorations, which must supply whatever dancing cannot bring before the eye. The ballet is an invention of modern times (the ingenious artist Baltazarini, director of music to the princess Catharine de' Medici, probably gave its form to the regular ballet), though pantomimic dances were not unknown to the ancients. (See *Mimic* and *Panto-*

mine.) The ballet owes much to the French, and particularly to Noverre. (q. v.) The dances, which are frequently introduced into operas, seldom deserve the name *ballet*, as they usually do not represent any action, but are designed only to give the dancers an opportunity of showing their skill.

BALLHORN, John; printer at Lübeck, who, between 1531 and 1599, published a spelling-book, on the last page of which he altered the usual picture of a cock with spurs, into that of a cock without spurs, having a couple of eggs at his side. As he printed in the title-page, on account of this trivial alteration, "Improved by John Ballhorn," the word *Ballhornize* is proverbially used, in Germany, to signify stupid and useless alterations, or the making a thing worse instead of better.

BALLISTÆ. (See *Balista*.)

BALLOON. (See *Aeronautics*.)

BALLSTON-SEA; a village of New York, 7 miles S. W. of Saratoga springs, 26 N. of Albany. This place is noted for its mineral waters, which are similar, though inferior, to those of Saratoga springs. It is situated in a deep vale, on a branch of the Kayaderoseras creek, and contains about 100 houses, a court-house, an Episcopal church, a Baptist meeting-house, and a number of large boarding-houses and inns, for the accommodation of visitors.

BALM OF GILEAD is the dried juice of a low tree or shrub (*amyrus gileadensis*), which grows in several parts of Abyssinia and Syria. This tree has spreading, crooked branches; small, bright-green leaves, growing in threes; and small, white flowers on separate footstalks. The petals are four in number, and the fruit is a small, egg-shaped berry, containing a smooth nut.—By the inhabitants of Syria and Egypt, this balsam, as appears from the Scriptures, was in great esteem from the highest periods of antiquity. We are informed by Josephus, the Jewish historian, that the balsam of Gilead was one of the trees which was given by the queen of Sheba to king Solomon. The Ishmaelitic merchants, who were the purchasers of Joseph, are said to have been travelling from Gilead, on the eastern side of Canaan, to Egypt, and to have had their camels laden with "spicery, balm and myrrh." It was then, and is still, considered one of the most valuable medicines that the inhabitants of those countries possess. The virtues, however, which have been ascribed to it exceed all rational bounds of credibility. The mode

in which it is obtained is described by Mr. Bruce. The bark of the trees is cut with an axe, at a time when its juices are in their strongest circulation. These, as they ooze through the wound, are received into small earthen bottles; and every day's produce is gathered, and poured into a larger bottle, which is closely corked. When the juice first issues from the wound, it is of a light-yellow color, and a somewhat turbid appearance; but, as it settles, it becomes clear, has the color of honey, and appears more fixed and heavy than at first. Its smell, when fresh, is exquisitely fragrant, strongly pungent, not much unlike that of volatile salts; but if the bottle be left uncorked, it soon loses this quality. Its taste is bitter, acrid, aromatic and astringent. The quantity of balsam yielded by one tree never exceeds 60 drops in a day. Hence its scarcity is such, that the genuine balsam is seldom exported as an article of commerce. Even at Constantinople, the centre of trade of those countries, it cannot, without great difficulty, be procured. In Turkey, it is in high esteem as a medicine, an odoriferous unguent and a cosmetic. But its stimulating properties upon the skin are such, that the face of a person unaccustomed to use it becomes red and swollen after its application, and continues so for some days. The Turks also take it in small quantities, in water, to fortify the stomach, and excite the animal faculties.

BALOOCHISTAN. (See *Beloochistan*.)

BALSAM. The term *balsam* was formerly applied to any strong-scented, natural, vegetable resin, of about the fluidity of treacle, inflammable, not miscible with water without addition, and supposed to be possessed of many medical virtues. All the turpentine, the Peruvian balsam, copaiba, &c., are examples of natural balsams. Many medicines, also, compounded of various resins or oils, have obtained the name of *balsams*; as Locatelli balsam, &c. Lately, the term has been restricted to those resins which contain benzoic acid. The most important balsams are those of Tolu and Peru—*storax* and *benzoin*, as they are named: the latter is concrete, the former fluid, though becoming solid with age. They are odorous and pungent, and useful only as articles of the materia medica. The benzoic acid is extracted from them either by applying a gentle heat, when it is volatilized, or by maceration in water, when it is dissolved.

BALTIC SEA, or the **EAST SEA**; a large

gulf, connected with the North sea. It washes the coasts of Denmark, Germany and Prussia, of Courland, Livonia and other parts of Russia and of Sweden; extends to $65^{\circ} 30'$ N. lat.; is above 600 miles long, from 75 to 150 broad, and its superficial extent, together with the contents of the gulfs of Bothnia and Finland, amounts to 120,000 square miles. Its small breadth, its depth amounting, on an average, to from 15 to 20 fathoms, but in many places to hardly half so much, the shallowness of the Prussian shore, and the rugged nature of the Swedish coasts, but, above all, the sudden and frequent changes of the wind, accompanied by violent storms, render this sea dangerous for navigators, although its waves are less terrible than those of the North sea. A chain of islands separates the southern part of this sea from the northern, or the gulf of Bothnia. In the north-east, the gulf of Finland stretches far into Finland, and separates that province from Esthonia. A third gulf is that of Riga or Livonia. The Curische Haff and the Frische Haff are inlets on the Prussian coast. The water of the Baltic is colder and clearer than that of the ocean: it contains a smaller proportion of salt, and the ice obstructs the navigation three or four months in the year. The ebb and flow of the tide are inconsiderable, as is the case in other inland seas, whose outlets are toward the west; yet the water rises and falls from time to time, although from other causes, particularly on account of the violent current, through the Sound and both the Belts, into the Cattegat. In stormy weather, amber is found on the coasts of Prussia and Courland, which the waves wash upon the shore. 40 streams empty into the Baltic: among them are the Neva, Dwina, Warnow, Trave, Peene, Oder, Persante, Wipper, Vistula, Pregel, Niemen (or Memel), and the generally insignificant Swedish rivers. Besides Zealand and Fuhnen, may be noticed the following islands: Samsøe, Mön, Bornholm, Langeland, Laaland, which belong to Denmark; the Swedish islands Gothland and Oeland, likewise Hween in the Sound, with the ruins of Oranienburg, the observatory built by Tycho Brahe; Rügen, now belonging to Prussia; lastly, the islands of Åland, at the entrance of the gulf of Bothnia, and Dagoe, together with Oesel, on the coast of Livonia, which belong to the Russian empire. Three passages lead from the Cattegat into the Baltic sea—the Sound, the Great and the Little Belt. At all three

a toll is paid, often amounting to 500,000 or 600,000 rix dollars yearly. From 4000 to 6000 ships enter yearly from the North sea into the Baltic.

BALTIMORE; a city and port of entry, in Baltimore county, Maryland, on the north side of the Patapsco, 14 miles above its entrance into Chesapeake bay; 37° N. E. Washington, 160 S. W. Philadelphia. Lon. $76^{\circ} 36'$ W.; lat. $39^{\circ} 17'$ N. Pop. in 1790, 13,758; in 1800, 23,971; in 1810, 46,556, of whom 10,343 were blacks; in 1820, 62,738.—B. has had a remarkably rapid growth. It was first laid out as a town in 1729; and, in 1765, it contained only about 50 houses. It was first erected into a city in 1797, and is now the third in size in the U. States. It is admirably situated for commerce, and is a place of great wealth and trade. It possesses most of the trade of Maryland, about half of that of Pennsylvania, and a portion of that of the Western States. B. is the best market for tobacco in the U. States, and it is the greatest flour market in the world. Its vicinity affords great water privileges, and there are now in operation numerous flour-mills, cotton manufactories, and other water-works. The shipping owned here in 1790 amounted to only 13,564 tons; in 1816, to 101,960 tons.—B., as laid out, is 4 miles square, and it is divided into 12 wards. It is built around a basin, which affords a spacious, secure and commodious harbor, having, at common tides, eight or nine feet of water. The principal part of the city is divided from the portions styled *Old Town* and *Fell's point* by a small river, called *Jones' falls*, over which are erected three elegant stone bridges, and four wooden ones. Vessels of 500 or 600 tons can lie at the wharves at the point in perfect safety; but those of only 200 tons can come up to the town. The mouth of the harbor is a narrow strait, and is effectually commanded by fort M'Henry, which secures the city against a naval force. The situation of a part of the town is low, and it was formerly accounted unhealthy; but the various improvements which have been made, particularly the filling up of low and marshy grounds, have rendered it healthy. It is supplied with excellent water from four public fountains, which are fitted up in an ornamental style.—B. contains a courthouse, a penitentiary, a jail, an almshouse, an hospital, two theatres, a circus, an exchange, a museum and gallery of paintings, 5 market-houses, and about 40 houses of public worship.—The ex-

change is a very large edifice, 366 feet by 140, somewhat resembling an H, having four wings—one for the United States branch bank, one for the custom-house, and one for a coffee-house. The Roman Catholic cathedral and the Unitarian church are very conspicuous and handsome edifices. St. Paul's church, the court-house and the Union bank are spacious and elegant. Several of the other public buildings are large and elegant. The Washington monument, a lofty structure of stone, is situated on an elevation just above the compact part of the city. The base is 50 feet square and 23 high, on which is placed another square of about half the extent and elevation. On this is a column 20 feet in diameter at the base, and 14 at the top. The statue of Washington is to be placed on the summit, 163 feet from the ground. The city is generally well built, mostly of brick. Many of the houses, particularly of those recently erected, display much elegance and taste. The streets are well paved, and many of them are spacious. The principal street, called *Baltimore* or *Market street*, is about a mile long, and about 80 feet wide, runs nearly east and west, parallel with the water, and is intersected at right angles, like those in Philadelphia. North and east of the city, the land rises to a considerable elevation, and affords a fine and variegated prospect. The town, the point, the shipping; both in the bay and at Fell's point, the bay as far as the eye can reach, rising ground on the right and left of the harbor, a fine grove of trees on the declivity at the right, and a stream of water breaking over the rocks at the hill on the left, make a scene of much beauty. The two principal literary institutions of B. are St. Mary's college and a medical college. The former, which was incorporated in 1806, is a Catholic institution, well endowed, and has a library containing about 10,000 volumes. The medical college was founded in 1807, and, in 1812, it received a new charter with the title of *university*.—A formidable attack was made on this city during the late war, on the 13th and 14th of Sept. 1814, by the British, under general Ross. On the 13th, the battle at North point was fought; and, on the 14th, fort M'Henry was bombarded. The enemy was repulsed, and general Ross slain. An elegant structure of marble, about 35 feet high, called the *battle monument*, has been erected to commemorate this event. On the column are inscribed the names of those who fell in

defence of the city. (For the Baltimore and Ohio railroad, see *Railroad*.)

BALTIMORE BIRD (*icterus Baltimore*; *oriolus Baltimore*, Wilson; called, also, *hang-nest*, *golden robin*, *fire-bird*, *hanging-nest*). The Baltimore bird is a beautiful visitor from the south, which arrives in Pennsylvania about the beginning of May, and departs towards the last of August or first of September. It is most generally known by the name of *Baltimore bird*, so called, according to Catesby, from its black and orange plumage, these colors being those of Calvert lord Baltimore, proprietary of the province of Maryland.—The bird is seven inches long, and has a nearly straight, strong, black bill, tapering to a point. The head, throat and upper part of the back and wings are black; the inferior part of the back, rump and whole of the body beneath are of a brilliant orange hue. The tail is slightly forked; the legs are of a lead color, and the irides hazel. The colors of the female are far less brilliant than those of the male. Beautiful figures of both sexes are given in Wilson's American Ornithology, whence this account is sketched.—The nest of the Baltimore bird is formed by fastening strong strings of hemp or flax round two forked twigs, corresponding to the intended width of the nest, on the high bending extremities of apple, willow or tulip-tree branches, near farm-houses. With similar materials, together with loose tow, a strong sort of cloth is interwoven, resembling raw felt, forming a pouch six or seven inches deep. This is well lined with soft substances, which are worked into the outward netting, and, finally, with a layer of horse-hair; the whole being protected from sun and rain by the overhanging leaves. The nests, however, are not uniformly of the same shape, and some are more perfect than others.—While making their nests, these birds will carry off any thread or strings left within their reach; they will even attempt to pull off the strings with which grafts are secured. All such materials are interwoven in the fabric with great ingenuity, and the strongest and best materials are uniformly found in parts by which the whole nest is supported.—The Baltimore bird feeds on bugs, caterpillars, beetles, &c. His song is a clear, mellow whistle, repeated at short intervals: when alarmed, a rapid chirping is uttered, but always followed by his peculiar mellow notes. The species inhabits North America, from Canada to Mexico, and is found even as far south as Brazil.

BALZAC, Jean Louis Guez de, a member of the French academy, born at Angoulême, in 1594, lived in Rome as agent of the cardinal de Lavalette, after two years established himself in Paris, and, by his talents, attracted the favorable notice of the cardinal Richelieu, who conferred upon him a salary of 2000 livres, with the title of a counsellor of state. He was considered as one of the greatest scholars and most eloquent men of his age in France; yet his numerous writings found severe critics. Among these, Goulu, general of the Feuillans (a monastic order, under the rule of St. Bernard), pushed his criticisms even to insult and abuse. This induced B. to leave Paris. He died in Angoulême, in 1654, in the 60th year of his age. Aiming at dignity of style, he fell into bombast, affectation and exaggeration, so that his works have gradually lost their reputation as taste has improved in purity. Nevertheless, we must do justice to the harmony of his periods, and acknowledge that he has done much towards the improvement of the French prose. He had studied the ancients, and his Latin poems, although without remarkable poetical merit, are pure, and free from the faults of his French writings. The most perfect of his works is, without doubt, a treatise upon Latin verse. The assertion of Voltaire and Laharpe, that he occupied himself more with words than with ideas, is too severe. A complete edition of his works appeared at Paris, in 1665, in two volumes, folio.

BAMBARRA; one of the largest and most powerful kingdoms of Central Africa; bounded N. by the Great Desert, W. by Kaarta, Mandingo and Ladamar, E. by Timbuctoo, and S. by Kong. It is traversed from W. to E. by the Niger, and is generally very fertile. The inhabitants are a mixture of Moors and Negroes. Among the towns are Sego, the capital, Jenne and Sansanding.

BAMBERG. This town, formerly the capital and place of residence of a bishop, whose see contained 1375 square miles and 200,000 inhabitants, now the seat of the provincial authorities of the Bavarian circle of the Upper Maine, and of an archbishop, has about 20,000 inhabitants. The prince of Neufchatel, Berthier, the son-in-law of duke William of Bavaria, here threw himself from a window, in the palace of the latter, in 1815, on account of the new revolution in France. The cathedral church was built as early as 1110. The university there is also very ancient.

BAMBOO CANE. The bamboo cane (*bambusa arundinacea*) has a hollow, round, straight and shining stem, and sometimes grows to the length of 40 feet and upwards; has knots at the distance of 10 or 12 inches from each other, with thick, rough and hairy sheaths, alternate branches, and small, entire and spear-shaped leaves. There is scarcely any plant so common in hot climates as this, and few are more extensively useful. It occurs within the tropical regions, both of the eastern and western hemispheres, throughout the East Indies and the greater part of China, in the West Indies and America. In temperate climates, it can only be cultivated in a hot-house; and its growth is so rapid, even there, that a strong shoot has been known to spring from the ground and attain the height of 20 feet in 6 weeks.—The inhabitants of many parts of India build their houses almost wholly of bamboo, and make all sorts of furniture with it in a very ingenious manner.—They likewise form with it several kinds of utensils for their kitchens and tables; and from two pieces of bamboo, rubbed hard together, they produce fire.—The masts of boats, boxes, baskets, and innumerable other articles, are made of bamboo. After having been bruised, steeped in water, and formed into a pulp, paper is manufactured from the sheaths and leaves. The stems are frequently bored, and used as pipes for conveying water; and the strongest serve to make the sticks or poles with which the slaves or servants carry those litters, so common in the East, called *palanquins*. The stems of the bamboo serve as the usual fence for gardens and other enclosures; and the leaves are generally put round the tea exported from China to Europe and America. Some of the Malays preserve the small and tender shoots in vinegar and pepper, to be eaten with their food. Many of the walking canes used in Europe and the U. States are formed of young bamboo shoots. The Chinese make a kind of frame-work of bamboo, by which they are enabled to float in water; and the Chinese merchants, when going on a voyage, always provide themselves with this simple apparatus to save their lives in case of shipwreck. It is formed by placing four bamboos horizontally across each other, so as to leave a square place in the middle for the body, and, when used, is slipped over the head, and secured by being tied to the waist.

BAMBOUK, or **BAMBUK**; a town in Africa, and capital of a kingdom of the same

name, between the Faleme and Senegal rivers; lon. $9^{\circ} 30'$ W.; lat. $13^{\circ} 25'$ N. The country is situated between $12^{\circ} 30'$ and $14^{\circ} 15'$ N. lat.; about 36 leagues from N. to S., and 28 in breadth, and said to contain about 60,000 inhabitants. It is composed chiefly of lofty, naked and barren mountains, and its wealth consists entirely in its mineral productions. These are gold (which is abundant), silver, iron, tin, lead and loadstone. The most remarkable animals are a species of asses, extremely white (which the inhabitants will not allow to be sent out of the country), white foxes and the giraffe. The little which is known of this state is derived from a Frenchman named *Compagnon*, who resided there a year and a half, in the beginning of the last century. (Labat, *Afrique Occidentale*, iv. 5.)

BAN, in ancient jurisprudence; a declaration of outlawry, of which we have recently had an instance in the proclamation issued against Napoleon after his return from Elba.—*Ban*, in political law, is equivalent to *excommunication* in ecclesiastical. The emperor of Germany had the right to declare a member of the empire under the ban, and to dispose of his feud. The ban, like the excommunication, forbids every one to have intercourse with the person proscribed, or to give him food or shelter. Very often, however, the sentence was repealed, and the party restored to all his rights and privileges.—*Ban*, in military affairs, is an order, given by beating the drum or sounding the trumpet, requiring the strict observance of discipline, or announcing the appointment of an officer, &c.

BAN (*bannus*). This name is given to the governors of Dalmatia, Slavonia, Croatia, placed at the head of civil and military affairs in these countries. *Ban* signifies, in the Slavonian tongue, a *master*. A province, over which a *bannus* was placed, is called *bannat*. At present, the only ban is that of Croatia, who has the third place among the secular nobles of Hungary. Before him come the *palatinus regni* and the *juxta curie*.

BANANA. The banana is a valuable plant (*musa sapientum*) which grows in the West Indies and other tropical countries, and has leaves about six feet in length and a foot broad in the middle, and fruit four or five inches long, and about the shape of the cucumber. When ripe, the banana is a very agreeable fruit, with a soft and luscious pulp, and is frequently introduced in desserts in the West Indies, but never eaten green, like the

plantain. The Spaniards have a superstitious dislike to cut this fruit across; they always slice it from end to end, because, in the former case, the section presents an imaginary resemblance to the instrument of our Savior's crucifixion. The banana is sometimes fried in slices as fritters. If the pulp of this fruit be squeezed through a fine sieve, it may be formed into small loaves, which, after having been properly dried, may be kept for a great length of time.

BANCA, an island belonging to the Netherlands, near Sumatra, one of the vassal states of Palembang, containing 60,000 inhabitants, among them 25,000 Chinese, is known on account of its tin mines, worked by the Dutch East India company (the annual profit of which, to the Dutch, is estimated at 150,000£), and its pearl fishery, which is also productive on the shores of the group of Solo islands, north-east from Borneo. The tin of Banca is pure and easily obtained. The south-easterly part of Banca has not yet been examined. The Banca islands, in $2^{\circ} 22'$ S. lat., and $105^{\circ} 41'$ E. lon., afford shelter from S. W. by S. to N. W., with a good supply of water and fuel.

BANDA ISLANDS; a group of islands belonging to the Netherlands, in the Eastern ocean, lying E. of the Celebes; so called from Banda, the principal of them; lon. $130^{\circ} 37'$ E.; lat. $4^{\circ} 12'$ S. They contain but 5763 inhabitants, though they are said formerly to have contained 15,000. Their chief produce is nutmegs, of which they are competent to supply the want to the rest of the world. The whole quantity produced on these islands cannot be accurately stated. The annual sales are said formerly to have amounted to 350,000 pounds of nutmegs and 100,000 pounds of mace. When, however, they were taken by the English, in 1796, the half year's crop was found to be little more than 80,000 pounds of nutmegs and about 24,000 pounds of mace. The trees in all the other islands were carefully extirpated by command of the Dutch; and the whole trade of those where the growth is cherished is a complete monopoly.—The names of the islands are Banda, or Lantor; Puloway, or Poolaway; Pulo Run, or Poolaron; Neira, Gunong Assi, or Guanapee Rosyngen; Pulo Prampon, Pulo Suanjée Capal, and Nylacky. The inhabitants are in alliance with the Dutch East India company.—These islands can never be expected to yield any advantage beside that derived from the spice trade. Entirely cut off from the other parts of

India, and deprived of all commerce, save a trifling bartering with the indigent natives of the south-eastern and south-western islands, they are even destitute of the means of subsistence for their own inhabitants, and must be supplied with every necessary from abroad, as nature, which has lavishly bestowed upon them articles of luxury, has denied them those of immediate necessity. Banda is likewise accounted a most unhealthy place, especially at the chief settlement of Neira. Some attribute this circumstance to the neighborhood of the volcano, in the island of Gunong Api, and others to a deleterious quality in the water.

BANDA ORIENTAL. This tract of country has fixed public attention, as the subject of an obstinate war between Brazil and the United Provinces of La Plata, and seems destined, by its geographical position, to possess much importance hereafter. It is situated between the eastern bank of the river Uruguay and the ocean, and between the river La Plata on the south and the Sierra do Topas on the north (which separates it from Brazil), and receives its name from its position with respect to the Uruguay. It is fertile and healthy, and, although checked in its prosperity by political misfortunes, had gained a white population of 80,000 souls. Having been originally settled by a Spanish colony from Buenos Ayres, it fell under the authority of Spain, but came, at length, to be the occasion of contention with Portugal. Both nations prized it; Spain, as giving her the control of both sides of the river La Plata; Portugal, as necessary to the free and secure navigation of the immense interior of Brazil; and each nation asserted a claim to a territory of so much consequence. During the long wars between Portugal and Spain, relative to the various boundaries of their vast possessions in South America, the Banda Oriental was overrun and wasted, sometimes by one and sometimes by the other, and their respective pretensions were differently regulated by successive treaties. In 1777, Portugal was forced to consent to the line of the Sierra do Topas, but afterwards seized on the district of the Missions, which she consented to restore, in 1804, as the price of the Portuguese fortress of Olivenza, held by Spain.—When the revolution commenced, the Orientalists naturally sided with the government of Buenos Ayres; but whether they merely acted in concert with the latter, or acknowledged a dependence, does not appear. Certain it is

that they soon made themselves independent of Buenos Ayres, under the guidance of Artigas, in consequence of a victory gained by him over the Buenos Ayreans, in 1815, at Gaubiju. But, soon afterwards, the Brazilians, pretending to fear that Artigas would propagate his revolutionary doctrines in Brazil, attacked him, broke up his forces, and compelled him to fly into Paraguay.—Brazil continued to hold military possession of the country, although resisted by the inhabitants, until 1822, when they were induced, ostensibly by persuasion, but really by intimidation, to send delegates to a convention at their capital, Monte Video, and to consent to be annexed to Brazil, by the name of the *Cis-Platine* province, which don Pedro claims as a voluntary union of the people with the empire of Brazil. When Brazil separated from Portugal, in 1822, the Orientalists joined a party of the army which declared for Portugal, and, on the submission of these troops, called upon Buenos Ayres for aid. Assistance was given them in arms, money and men, but not ostensibly by the congress, until their leaders, Lavalleja and Fructuoso Rivera, had shut up the Brazilians in Monte Video, and a provisional government, organized in the town of Florida, formally declared the Banda Oriental to be reunited to Buenos Ayres. The standard of independence was raised by Fructuoso Rivera, April 27th, 1826; and, as he was immediately aided, by Lavalleja, with forces organized in Buenos Ayres, this may be considered as the actual commencement of the war. Oct. 12, Lavalleja gained the victory of Sarandi, and the republic no longer hesitated to assume a quarrel, which began to wear a prosperous aspect. But no formal declaration of war was issued until that of Pedro, dated Dec. 30th, 1826, which entered into an elaborate exposition of the alleged rights of Brazil. The war has been alike prejudicial to both countries. While Pedro blockaded Buenos Ayres, the cruisers of the latter cut up the commerce of Brazil; and while both parties contributed to waste the Banda Oriental, the Orientalists carried similar devastation into the Brazilian province of Rio Grande. But neither party possessed adequate resources to strike a decisive blow; and the solicitations of Great Britain, who, like other neutral nations, suffered by the war, at length brought about a peace, which was signed at Rio, Aug. 28th, 1828, and, in substance, provided that the Banda Oriental should

become an independent state, under the mutual guarantee of the two contracting parties. Thus the war, after completely exhausting both Brazil and Buenos Ayres, ended in a drawn game as to the subject of the contest.

BANDELLO, Matteo, a novelist, born, about 1480, at Castelnovo di Scrivia, studied at Rome and Naples, and applied himself almost exclusively to polite literature. He was, in his youth, a Dominican monk at Castelnovo. He seems to have lived some years in Mantua, where Pirro Gonzaga and Camilla Bentivoglio intrusted to him the education of their daughter. He afterwards resided at Milan, until, after the battle of Pavia, the Spaniards banished him thence as a partisan of France. Upon this he went first to Ludovico Gonzaga, then to Cesare Fregoso, who had left the Venetian for the French service, and lived with the latter, in Piedmont, till the conclusion of the truce between the belligerent powers, and then followed him to France. After the death of his protector, he resided at Agen, with the family of the deceased, and, in 1550, was appointed bishop of that city. He left the administration of his diocese to the bishop of Grasse, and employed himself, at the advanced age of 70, in the completion of his novels, of which he published three volumes in 1554; a fourth was published in 1573, after his death. Camillo Franceschini also published his novels at Venice, in 1566, 4to. B. published, at Agen, in 1545, *Canti XI delle Lodi della S. Lucrezia Gonzaga di Ganzuela e del Vero Amore*, col *Tempio di Pudicitia*, and also two other poems; altogether of but little value. Other poems of his, found in manuscript at Turin, were printed by Costa, in 1816, under the title of *Rime di Matteo Bandello*. The novels of B. are distinguished by a natural simplicity, a rapid narration, and periods at once short and harmonious; but their contents are frequently impure. This reproach applies more to him than to Boccaccio, that he loves to dwell on wanton scenes, and to paint them in lively colors to the imagination.

BANDE NOIRE. When the revolution in France had rendered superfluous much ecclesiastical property, also many castles and residences of the emigrant, and resident nobility, by the abolition of trusts and entails, and by the equal division of property among the children of these families, nothing was more natural than that, with the increase of population, societies should be formed to purchase

the edifices which had thus become useless (churches, chapels, abbeys, monasteries, bishops' residences, parsonages, Gothic castles, with their prisons and other appurtenances, hunting lodges, watch-towers, &c.), and pull them down, just as the merchants of Amsterdam, on the decline of their prosperity, allowed the villas about that commercial city to be pulled down, or sold in order to be pulled down, by the *slopers*, so called. To many this seems a barbarous custom. In Germany, also, after the great secularization of cathedrals and monasteries, associations were formed, particularly of the Jews, who, with profit to themselves, bought the buildings which had become unnecessary, pulled them down, and sold the materials, as well as the state's domains, which had been alienated in large lots, and were now disposed of by them in small portions. The *bande noire* enriched itself from the sale of the materials for building, from the felling of wood in the parks, and from the disposal of land for gardens, meadows and fields. The public, too, were benefited at the same time. In places where this has frequently happened, the countryman dwells more comfortably, and is richer, than in many other quarters; for example, in the Pyrenees, and particularly in the southerly part of France.

BANDETTINI, Theresa, an improvisatrice, born at Lucca, about 1756, received a careful education, but was obliged (her family having lost their property) to go upon the stage. She made her first appearance in Florence, and was unsuccessful. This, united to her love for polite literature, led her to the most assiduous study of the poets. As she was one day listening to an improvisatore of Verona, her own genius broke forth in a splendid poetical panegyric on the poet. Encouraged by him, she devoted herself entirely to this beautiful art. Her originality, her fervid imagination, and the truth and harmony of her expression, soon gained for her a distinguished celebrity. She was enabled to abandon the stage, and travel through Italy; and she enjoyed the honor of being chosen a member of several academies. One of her most celebrated poems was that which she delivered, in 1794, impromptu, before the prince Lambertini, at Bologna, on the death of Marie Antoinette of France. In 1813, wearied with travelling, she returned to her native city, where she lived retired on her small property. She published *Ode tre* (Lucca, 4), of which the first celebrates

Nelson's victory at Aboukir, the second Suwaroff's victories in Italy, and the third the victories of the archduke Charles in Germany. She also gave to the world, under the name of Amarilli Etrusca, *Saggio di Versi Estemporanei* (published, in Pisa, by Bodoni), among which the poem on Petrarch's interview with Laura, in the church, is particularly distinguished, and places her by the side of Rossi.

BANDIT (Ital. *bandito*); originally an *exile*, then a *hired murderer*. This name was given to the assassins (see *Ishmaelites*) of Italy. At the present time, in Italy, *bandit* and *robber* are almost synonymous. They form a kind of society of themselves, which is subjected to strict laws, and lives in open or secret war with the civil authorities, and are a disgraceful proof of its weakness, no Italian government having succeeded in extirpating them. The strict measures which the papal government adopted, in 1820, against persons who should harbor bandits and robbers, have indeed destroyed their lurking-places; but the villains who were formerly settled are now become vagabonds. Those, however, who infest the environs of Naples, are the peasants of the country, who, besides being engaged in agriculture, employ themselves in robbery and murder. The fear of capital punishment is ineffectual to deter them from these crimes. Peter the Calabrian, the most terrible among these robbers, in 1812, named himself, in imitation of the titles of Napoleon, "emperor of the mountains," "king of the woods," "protector of the *conscripted*," and "mediator of the highways from Florence to Naples." The government of Ferdinand I was compelled to make a compact with this bandit. One of the robbers entered the royal service, as a captain, in 1818, and engaged to take captive his former comrades. More lately, adventurers of all kinds have joined them. These bandits are to be distinguished from other robbers, who are called *malviventi*; and the Austrian troops, which occupied Naples, were obliged to send large detachments to repress them. It is remarkable, in these robbers, that they only attack travellers on the highways. This also is true of those who exact from strangers and natives a sum of money for protection, and give them in return a letter of security; which, a short time ago, was the case in Sicily, where the bandits dwell in the greatest numbers in the Val Demone. Here the prince of Villa Franca declared himself, from political and other views,

their protector: he gave them a livery, and treated them with much confidence, which they never abused; for even among them there is a certain romantic sense of honor derived from the middle ages. They keep their promises inviolate, and often take better care of the security of a place intrusted to them than the public authorities.

BANER, also **BANNIER**, John (in English, always written *Baner*), a Swedish general in the thirty years' war, descended from an old noble family of Sweden, was born in 1596. When a child, he fell from the castle of Hörnings-holm, four stories high, without being injured. Gustavus Adolphus, who valued him very much, early prophesied that he was destined for greatness. He made his first campaigns in Poland and Russia, and accompanied his king to Germany. After the death of Gustavus, in 1632, he had the chief command over 16,000 men, and was the terror of the enemy. He obtained the greatest glory by his victory at Wittstock, in 1636, over the imperial and Saxon troops; and it was also owing to his activity, that, after the battle of Nordlingen, the affairs of Sweden gradually improved. He died at Halberstadt, in 1641, under 45 years of age, and was suspected to have been poisoned. In him Sweden lost her ablest general, and the imperial troops their most dangerous enemy. B. was careful to engage in no enterprise without a reasonable probability of success. He knew how to avoid danger with dexterity, and to escape from a superior force. During his command, 30,000 of the enemy were killed, and 600 standards taken, on different occasions. He was always found at the head of his men, and maintained good discipline. He wanted patience for sieges. He has been accused of pride and severity. The pleasures of the table and of love occupied all the leisure time which his employments allowed him, and probably immoderate indulgence in them was the real poison which brought on his death. He was three times married.

BANGOR; a post-town and capital of the county of Penobscot, in Maine, on the W. side of Penobscot river, at the head of the tide and of navigation; 52 miles N. of Owl's-head, at the mouth of Penobscot bay; 68 miles N. E. of Augusta; lat. 44° 45' N.; lon. 68° 45' W.: population, in 1820, 1221; in 1825, 2002. Its situation is pleasant, and very advantageous for commerce. It is a flourishing town, and contains a theological seminary with two professors, a court-house,

and other public buildings. The river is navigable, as far as this town, for vessels of 300 or 400 tons.

BANGUE; a kind of opiate, much used throughout the East as a means of intoxication. The Persians call it *beng*. It is made of the leaf of a kind of wild hemp, in different ways.

BANIANS; a name formerly given by Europeans to almost all the Hindoos, because *baniya*, the term whence it is derived, signifies a *banker*, the class with which Europeans had most frequent intercourse. It is one of the mixed classes, sprung from a father of the medical and a mother of the commercial class. The English sailors call *banian days* those days on which they have no flesh meat. Probably the name is taken from the word at the head of this article, because, before people were acquainted with the abstinence of all the Hindoos, it was thought to be confined to the Banians.

BANISHMENT. (See *Exile*.)

BANK. The term *bank*, in reference to commerce, implies a place of deposit of money. Banks, like most commercial institutions, originated in Italy, where, in the infancy of European commerce, the Jews were wont to assemble in the market-places of the principal towns, seated on benches, ready to lend money; and the term *bank* is derived from the Italian word *banco* (bench). Banks are of three kinds, viz., of *deposit*, of *discount*, and of *circulation*. In some cases, all these functions are exercised by the same establishment; sometimes two of them; and, in other instances, only one.—1. A bank of deposit receives money to keep for the depositor, until he draws it out. This is the first and most obvious purpose of these institutions. The goldsmiths of London were formerly bankers of this description: they took the money, bullion, plate, &c. of depositors, merely for safe keeping.—2. Another branch of banking business is the discounting of promissory notes and bills of exchange, or loaning money upon mortgage, pawn, or other security.—3. A bank of circulation issues bills or notes of its own, intended to be the circulating currency or medium of exchanges, instead of gold and silver. Banks are also divided into *public* and *private*; but what is a public bank, is not very definitely settled. Where the government of a nation, or the municipal authorities of a place, as in Amsterdam, has the direct management or control of a bank, it is a public one; and those institutions of this class, the credit of which is

connected with that of the government, or which are used as instruments in collecting and distributing the public revenues, or in which the government is a proprietor, are public banks; and so are also those usually considered to be, which are carried on under a charter from the government; whereas a private bank is usually understood to be one that is carried on by one or more individuals, without any particular connexion with the government, or any special authority or charter. There is, for instance, in England, but one public bank, namely, the bank of England; whereas, in the U. States, most of the banks are public, and, in some of the states, private banks of circulation are prohibited by law. The general character and the different kinds of these institutions being thus explained, the reader will be enabled the more easily to understand our account of some of the banking institutions of the greatest historical notoriety.

The Bank of Venice was established as early as 1171, during the crusades, and for the purpose of rendering assistance to those expeditions. It was a bank of deposit only, and strictly a public bank, as the government became responsible for the deposits, and the whole capital was, in effect, a public loan, the funds of the bank being made use of by the government; and, in the early periods of the operations of this bank, they were not withdrawn, when once deposited, but the depositor had a credit at the bank to the amount deposited; and he used the money so deposited by transferring this credit to another person, instead of paying money. Subsequently, however, the deposits were allowed to be withdrawn; for, though the bank credits answered all the purposes of money at Venice, a specie currency was wanted by persons going abroad, or having payments to make in distant places. This bank continued in operation until the dissolution of this republic, in 1798.

The Bank of Amsterdam was established in 1609, and owed its origin to the clipped and worn currency, which, being of uncertain and fluctuating value, subjected the exchange to a corresponding fluctuation and uncertainty. The object of the institution was, to give a certain and unquestionable value to a bill on Amsterdam; and, for this purpose, the various coins were received in deposit at the bank at a certain value, according to their weight and fineness, a small deduction of seigniorage being made, equivalent to the supposed expense of coinage into money

of the proper weight and fineness, and the depositor was also required to pay a small amount for the privilege of having an account at the bank. As the money received is not, in fact, recoined, these charges, with a distinct charge for deposits of bullion, and a fee for every new deposit, and five stivers for every transfer, constitute the income of the establishment, and, being more than sufficient to defray the expenses, a net revenue accrues to the city, though the acquisition of revenue was not contemplated in forming the institution. A profit has also occasionally been made by purchasing the current coin whenever it could be converted into bank money at an expense less than the agio. The deposits made and credited are denominated *bank money*, which is at a certain premium or agio above current money, according to the fineness and weight of the current coin; and, since the currency has been well regulated, this agio is steady and inconsiderable, never exceeding five per cent. In order to produce the intended effect on the exchange, it was provided, by law, that all payments of 600 guilders, or about \$233, and upwards, should be made in bank money; and payments are made by transfers of credits in the books of the bank, as formerly at Venice. In one respect, this bank differs from that of Venice, as the deposits are not taken out and used by the government, but remain in the vaults. The direction of this bank is placed in the hands of four burgomasters or aldermen for the time being, who count and receipt for the money on coming into office, at the commencement of each year. During the whole period since the establishment of the bank, no peculation, or breach of trust, on the part of these directors, has ever happened. This is a bank merely of deposit and transfer: it neither makes loans nor circulates bills.

The *Bank of Hamburg* was established in 1619, 10 years after that of Amsterdam, and, like this latter, is a mere bank of deposit and transfer, the deposits being made in coin or bullion, at a certain fixed rate, and liable to be withdrawn by the depositors: any one having a credit at the bank may draw out the amount of his credit. The bank has not properly, therefore, any capital of its own, the whole funds being liable to be withdrawn at any moment. The expenses of the institution are defrayed by a charge of a certain rate per page of transfers in the bank book to every depositor. The

amount of deposits varies from 10 to 15 million dollars. This bank was plundered by Davoust, when he was in possession of Hamburg, in 1813; but many of the depositors, anticipating this event, had withdrawn their deposits, and remitted them to Copenhagen or England; and, to those who remitted to England, it proved quite a fortunate event, for, by the subsequent rise of exchange, they nearly doubled their capital. The depositors who were thus plundered of their property have received a partial indemnity of 36 per cent. from the French government, since the restoration of the Bourbons. The directors of this bank, five in number, are chosen annually by the whole body of the citizens of Hamburg, having a right to vote for municipal officers. They receive no salary.

The *Bank of England* is one of deposit, discount and circulation. It was chartered in the reign of William and Mary, 1693, seventy or eighty years after those of Amsterdam and Hamburg, by an act which, among other things, secured certain recompenses and advantages to such persons as should advance the sum of £1,500,000 towards carrying on the war against France. The sum of £1,200,000 was subscribed before the expiration of the year, and the subscribers became, under the act, stockholders, to the amount of their respective subscriptions, in the capital stock of a corporation, denominated the *Governor and Company of the Bank of England*. This charter was granted for 11 years, and the company advanced to the government £1,200,000, at an interest of eight per cent.; and the government made an additional bonus, or allowance to the bank, of £4000 annually, for the management of this loan (which, in fact, constituted the capital of the bank), and for settling the interest and making transfers, &c. among the various stockholders. This bank, like that of Venice, and unlike those of Amsterdam and Hamburg, was originally an engine of the government, and not a mere commercial establishment. The management of the institution is in the hands of a governor, lieutenant-governor, and 24 directors, elected by stockholders who have held £500 of stock for six months previous to the election. A director is required to hold £2000, a deputy-governor £3000, and a governor £4000, of the capital stock. Its capital has been increased, from time to time, so as to stand at different periods as follows:

1694, the original capital, £1,200,000	
1697,	2,201,171
1708,	4,402,343
1709,	5,058,547
1710,	5,559,996
1722,	8,959,996
1742,	9,800,000
1746,	10,780,000
1781,	11,642,400

The rates of dividends have been as follows:

From 1694

to 1696, 3 yrs.,	8 per cent.
" 1707, 11 "	9 " "
" 1729, 22 " estimated,	9 to 5½ "
" 1746, 17 " actual,	6 & 5½ "
" 1752, 6 "	5 " "
" 1753, 1 yr.	5 & 4½ "
" 1763, 10 yrs.,	4½ "
" 1766, 3 "	5 " "
" 1780, 14 "	5½ "
" 1787, 7 "	6 " "
" 1806, 19 "	7 " "
" 1823, 17 "	10 " "
" 1826, 3 "	8 " "

The bank has, besides, at different times, made dividends under the name of *bonuses*, viz.:

June, 1799,	10 per cent.
May, 1801,	5 " "
Nov., 1802,	2½ " "
Oct., 1804,	5 " "
" 1805,	5 " "
" 1806,	5 " "

The amount of loans to the government has increased with the capital of the bank. In 1787, the permanent loan to government was £8,688,570; in 1797, £10,672,490—an amount approaching very near to that of the whole capital. In 1817, the loan to government arose to £28,300,209, and, in 1825, it was £18,261,100. Ever since its establishment, the bank has been closely allied with the government, the fate of the institution having always been directly involved in that of the government; and, for 26 years, from 1797 to 1823, as we shall see, the existence of the government, and fate of the kingdom, seemed to depend upon maintaining the credit of the bank, and the circulation of its paper. Besides being a creditor of the government to the immense amount already mentioned, the institution is an important agent in the management of the public debt, and the collection of the revenue, the whole of which, amounting to about £50,000,000 per annum, passes through the bank.—Besides its importance to the government as a public creditor, and as an agent in man-

aging the finances and public debt, collecting taxes, and paying interest and annuities, this institution is, in its character of a bank of deposit, discount and circulation, a powerful auxiliary to commerce and industry. As a bank of deposit, it offers the advantages of those of Hamburg and Amsterdam. Transfers or assignments of deposits, being made by means of checks, are attended with less trouble than the writing off and transferring of credits at Amsterdam and Hamburg. Besides permanent loans to the government, the bank makes extensive discounts of paper, or, in other words, loans a great amount on promissory notes and bills of exchange. It is apparent, from the statement already made, that, if the actual capital is not greater than its estimated nominal amount, namely, £11,642,400, it had, in 1787, but a comparatively small amount of capital to loan to individuals; for, £10,672,490 of its capital being loaned permanently to the public, only the sum of £969,910 of the capital remained for private loans. This amount might then have been loaned, if the institution were merely a loaning or discounting one, and received no deposits, and circulated no bills. But all the means of additional loans must have been derived from deposits and circulation; and the means derived from these sources, for this purpose, must obviously be very ample; for the payment of the revenue of the kingdom through the bank, if we suppose the money to remain in the bank, on an average, one day, will give a fund of £166,666. The deposits by individuals and companies will add immensely to this fund. It is true, that the bank is liable to be called upon at any moment for these deposits, and, where no interest is allowed upon them by the bank, the depositors will generally withdraw them as soon as they can make an investment; but, still, experienced bankers will estimate, with some precision, the average of deposits on which they may venture to discount. Besides this fund for discount or loan, the bank has the additional one of the amount of the excess of the circulation over that of the specie necessary to be kept in the vaults of the bank, to redeem the bills presented for payment. To a bank with the resources and advantages of that of England for collecting specie, it is quite an ample provision for its circulating notes and bills, to keep on hand 20 or 25 per cent. of the amount of such circulation, where its discounts are for short periods of two or three months. The

circulation of this bank has varied at different times, but, on the whole, gradually increased. From 1792 to 1800, it arose from about £11,000,000 to about £12,000,000; from 1800 to 1810, it increased to above £18,000,000; from 1810 to 1820, it was at the maximum, being, in Aug., 1817, as high as £30,099,908, and, generally, during this period, ranging from £25,000,000 to £28,000,000; from 1820 to 1826, it ranged from £18,000,000 to £23,000,000, and, on the 26th of February, 1826, was £23,673,737. It thus appears that the circulation of notes gives the bank an effective loaning capital of from £15,000,000 to £20,000,000. It appears, further, that the actual capital of the institution is greater than its nominal stock, or the amount on which dividends are made. In March, 1819, the actual capital exceeded the nominal by £4,261,280; but this excess must vary with the periods of making dividends, and also with the good or ill success of the business of the institution. From all these sources the bank has an available loaning capital of over £20,000,000, besides the loan of £10,672,490 to the government. Thus, on a capital stock of 11 millions, the bank receives interest on between 30 and 40 millions, including the interest on the government loan, besides the bonus annually paid to the bank, for its agency in the financial concerns. This accounts for the high rate of dividends made on the capital stock, as above stated, being between two and three times the current rate of interest in Great Britain. It has not, at the time of this article going to press, been ascertained what effect the law of 1826, which went into operation Feb. 5, 1829, prohibiting the circulation of notes under £5, will have upon the amount of the circulation. This regulation, instead of diminishing, seems to be likely to increase, the amount of circulation of bank of England notes; for, though the bank-note circulation will be, on the whole, diminished, throughout the kingdom, by substituting specie, in part, for the small notes, yet the same measure will, most probably, give a greater country circulation to its notes of £5 and upwards. Since 1800, the circulation of the notes of this bank under £5 has varied exceedingly, being, in 1800, £1,406,708; in 1816, £9,036,374; in 1824, as low as £491,370; and, in 1826, when this law was enacted, standing at £1,559,756.—The most important event in the history of this institution we have reserved for a distinct consideration, viz., the stopping of specie payment, in 1797.

On the 26th of February of that year, being Sunday, an order of the privy council was transmitted to the bank towards evening, prohibiting the further payment of specie until the pleasure of parliament should be made known. The parliament took the subject into consideration the next day, Feb. 27, and approved of the order of the privy council. The suspension of specie payment was originally intended to be only a temporary measure, and the strongest assurances were given to this effect on the part of the bank and the government. It was, however, continued, from time to time, but always as a temporary measure, until, in 1819, 22 years after the suspension of payment, steps began seriously to be taken for resuming specie payments, which were, in fact, resumed, on the 1st of May, 1823. The bank thus presents the singular example of a virtual insolvency for 26 years, and eventual redemption of its paper and its credit; and this return to specie payments was not attended by any sudden revulsion or commercial shock: preparations were made for it long beforehand. The amount of the notes of the bank in circulation was reduced from about £24,000,000 to about £18,000,000. In the mean time, a new coinage of gold had been issued, in 1821—1822, to the amount of £14,877,547, which supplied the chasm made in the circulation of the country by the reduction of the amount of bank of England notes, and also went to replenish the vaults of the bank, in preparation for the run that might be made on the resumption of payment; but the danger was passed with the greatest facility. The bank-notes had depreciated, or, as the phrase was at the time, the price of bullion had gradually risen, so as to be, at one period, at the rate of 14 or 15 per cent.; and, if the bank had then stopped suddenly, and, if we may imagine it possible, had redeemed the whole of its paper, £25,000,000 or more, with specie, it would have been a gain to the then holders of the notes, in the whole, of £3,500,000, and a loss to the then debtors to the bank of the same amount, assuming the depreciation to be 14 per cent.; while the bank itself would have lost only the amount of bad debts, which would have been made by such a sudden and tremendous revulsion; for, the moment of the bank's resuming to pay specie itself, by this very operation, it reduced the payments to the bank, by its debtors, to specie; for the bank had a right to demand payment of notes and bills discounted in specie, or, what would

have been equivalent, its own notes. Such a measure would evidently have shaken the kingdom to its foundations, and probably have brought down its commercial, financial and economical systems in ruins. Instead of such a catastrophe, either in discontinuing or renewing payments of specie, each of which was equally difficult and hazardous, the transition in the depreciation of the paper was gradual, and almost imperceptible, and, after the overthrow of Napoleon, its rise in value was again, for the most part, as gradual, until it arrived to a par with gold, before the resumption of specie payments. In a political, financial and commercial view, this institution, from the suspension to the resumption of specie payments, presents a stupendous phenomenon, unparalleled in history. The suspension of payment, in 1797, was one of those bold measures, which are justified only by extreme cases, and which, in such cases, are, in fact, the only prudent measures. The whole system of financial administration, and all the commercial combinations and connexions of the kingdom, were involved in the affairs of the institution at the time of its stopping, in 1797. The holders of the notes, and the depositors, were pressing to the bank for specie, of which there remained in the vaults only £1,272,000, while the notes and claims outstanding, and which might be demanded, were £8,640,250, and the demands were pouring in with a still increasing tide. It seemed probable that the bank must stop payment after paying out this specie; the shock, whatever it might be, must be encountered, and it was very justly supposed that it would be, in a measure, broken, by anticipating the necessity, and stopping with more than a million in its vaults, instead of waiting until they should have been emptied. The reasons given in parliament in favor of this suspension of payment, and of its continuance from time to time, were, 1. that the bank could not continue its discounts, and its payments in specie; and, if its discounts were stopped, or greatly reduced, the commerce of the country would be destroyed: 2. that the credit of the government would be lost if the bank should cease to make advances upon its taxes: 3. that specie payments were of no benefit to England, as the specie, on being drawn from the bank, went abroad: 4. that it was more important that the bank should exist, than that it should meet its payments at the expense of its existence: 5. that the commercial arrangements, combinations and relations, existing in the kingdom, would be broken

up by the dissolution of this institution, and, being once broken up, could never be renewed; and, 6. that it was better to stop specie payments while some specie and bullion could be kept in the country by that means. Such were the reasons given in favor of the measure, and though it has been censured by some, who have pretended to discover in it the cause of much financial and commercial derangement, yet they do not show by what other course Great Britain could have struggled through the terrible conflicts of that period.

Bank of France. The bank of France was established, in 1803, by the union of three private banking institutions of Paris, with a capital of 45,000,000 francs, with the exclusive privilege of issuing bills payable to the bearer for 15 years. In 1808, the bank was invested with the right to establish provincial branches, some of which have been established in the commercial towns of the kingdom. This, like the bank of England, is a bank of deposit, discount and circulation. It discounts paper on which there are three responsible names. Like the bank of Stockholm, it makes loans upon pawns; and, like that of England, it discounts, or, in other words, makes advances upon, the public taxes. It is strictly a public institution, as the government appoints the governor, with a salary of 60,000 francs, who is required to be a stockholder to the amount of 50,000 francs, and the 2 deputy-governors, with a salary of 30,000 francs each, who must each own stock to the amount of 25,000 francs. These officers appoint the inferior officers of the institution. In 1807, the capital was doubled, being then raised to 90,000,000 francs, and the charter extended to 40 years. The original charter provided for a reserved fund of all the surplus profits for the year over 8 per cent. on the capital, and there remained, after the expiration of the first year of its operation, a surplus of 4,185,937, making, with the 8 per cent. dividend to the stockholders, a profit of about 12 per cent. The excess over 8 per cent., the second year, was a little larger still. This bank is, like that of England, closely allied to the government, to which it made immense advances in 1806, for the prosecution of the war against Austria, and was thereby reduced to embarrassment, which spread temporary distrust, and occasioned numerous bankruptcies. But, on the fortunate termination of that war, the resources of the bank were replenished, and its credit reestablished. Its affairs were now administered with great success, and with

a powerful influence upon the industry of the kingdom, until, in 1814, the large advances again required by the government brought the institution anew into temporary difficulty, and occasioned an order of the government, limiting its specie payments to 500,000 francs per day, and prohibiting the payment of more than 1,000 francs in specie to any one person. But, as small notes are not put into circulation, and a great part of the currency of the kingdom is specie, the bank was soon enabled to resume specie payments in full, and its affairs have, since that time, been conducted with uninterrupted success. It appears, from an account of this institution, published in the *Moniteur*, that, in 1828, the discounts were 407,226,391 francs, yielding an interest of 2,519,492 francs, being about 947,200 francs less than those of the preceding year. The loans on pledge of bullion produced an interest of about 94,720 francs. The bank has coined, from 1820 to 1828, about 118,400,000 francs. The greatest amount of bank-notes out at any one time was 210,000,000 francs. The amount of bullion and coin in the coffers of the bank, at the same time, was 240,000,000 francs. The number of shares was 69,000, on each of which 1000 francs were originally paid into the bank; but, in 1828, their value in the market was 1810 francs. The number of shareholders, Jan. 1, 1827, was 3536. The reserved profits were, in 1828, 8,480,598.—Of the other banks of Europe, that of Genoa was formerly one of the most important. Among the principal banks of the present time, not previously mentioned, are the following; those of Altona, Berlin, Copenhagen, Madrid, Naples, Christiania, Rome, Rotterdam, Stockholm, Stuttgart, Vienna, and the imperial banks of Russia.

Bank of the United States. The old bank of the U. States was incorporated by an act of congress, approved February, 1791. By the limitation of the charter, it was to expire on the 4th of March, 1811. This, like the banks of England, France and Sweden, was a bank of deposit, discount and circulation, with a capital of \$10,000,000. Those European writers, both British and French, who have eulogized this institution as being purely commercial, and distinguished from those of England and France by not being connected with the government, or an engine of finance, cannot have read the charter, the preamble to which begins thus: "Whereas the establishment of a bank will be very conducive to the conducting of the national finances, will

tend to give facility to the obtaining of loans for the use of the government in sudden emergencies, and will be productive of considerable advantages to trade and industry in general," &c. Instead of being a merely commercial establishment, therefore, it was, essentially and mainly, of a financial and political character, and it was on this ground that its constitutionality was defended; the right of congress to grant such a charter being claimed mostly upon the strength of that clause of the constitution, which gives to congress the power necessary for carrying into execution the powers enumerated, and expressly vested in that body. The origin of this establishment was, therefore, similar to that of the bank of England, and the resemblance is not limited to the general purposes of its institution, for, as the bank of England originated in a loan to the British government, so the act by which the old bank of the U. States was chartered, provided that the sums subscribed by individuals and corporations should be "payable, one fourth in gold and silver, and three fourths in the public debt" certificates. The president of the U. States was authorized to subscribe for two millions of the stock in behalf of the U. States. The directors, being 25, were chosen by the stockholders, without any interference, on the part of the government, in the election; but the government reserved the right of inspecting the affairs of the bank, and, for this purpose, the secretary of the treasury was authorized to demand of the president and directors a statement of its concerns as often as he might see fit. The corporation was authorized to establish branches in any part of the U. States. The only restriction, as to circulation, was, that the amount of debts due from the corporation, by bond, bill, note, or otherwise, besides the debts due for deposits, should never exceed \$10,000,000; and, in case of excess, the directors, by whose agency such debt should be incurred, were made personally answerable. This bank went into operation, and had a most powerful agency in establishing the credit of the government, facilitating its financial operations, and promoting the interests of industry and commerce. Congress having refused to renew the charter, it expired, by its own limitation, in 1811. But, during the war which ensued, the want of a national bank was severely felt, not only as an agent for collecting the revenues, but more especially for transmitting funds from one part of the country to another; and then it might have been a useful aux-

diary to the public credit, by supplying temporary loans in cases of emergency. So thoroughly convinced were the public of the necessity of such an institution, that the members of the same political party from which the constitutional objections had been made to the old bank, and which had refused to renew its charter, passed an act of congress, which was approved by the president April 10, 1816, chartering the present bank of the U. States, with a capital of \$35,000,000, upon principles, and with provisions, very similar to those contained in the former charter. For this charter the government demanded and received a bonus of \$1,500,000 from the stockholders. The government became a stockholder in the same proportion as in the former bank, taking one fifth, or \$7,000,000 of the stock. The direction of the institution was left to the stockholders, as in the old bank, except that the government reserved the right of appointment and removal at pleasure, by the president, of 5 directors out of the 25, the other 20 being elected by the stockholders. The government also reserved the right to demand a statement of the concerns of the institution by committees of either branch of the legislature. One quarter of the subscriptions to the stock were payable either in gold and silver, or U. States stock, at the option of subscribers. The 7 millions to be subscribed by the government was payable either in gold and silver, or public stock at an interest of 5 per cent., at the option of the government. The transactions of the corporation were limited to making loans and trading in the precious metals, and the sale of such goods or proceeds of such lands as should be pledged. Branches may be established in any parts of the U. States or their territories. No other similar corporations are to be chartered by the government, except banks in the district of Columbia, with a capital, in the whole, not exceeding \$6,000,000, during the period for which the charter was granted, namely, to the 3d of March, 1836. The bank is prohibited from purchasing any part of the public debt, taking interest over 6 per cent., or loaning to the government over \$500,000, or to any state over \$50,000. And the debts of the institution are in no case to exceed the amount of deposits by more than \$35,000,000. And, in case of refusing payment of its notes or deposits in specie, the bank is made liable to pay interest at the rate of 12 per cent. per annum. The bank is

also obliged, by its charter, to give the government the necessary facilities for transferring the public funds from place to place within the U. States, without charging commissions, or claiming any allowance on account of the difference of exchange, and to transact all the business of commissioners of loans whenever required so to do. The bank is prohibited from issuing bills under the denomination of 5 dollars.—It is an object proposed by the charter, as appears from some of the provisions already noticed, to make the institution independent of the fortunes, and place it beyond the exigencies, of the government, by limiting the amount of loans that may be made to the government, and prohibiting the purchase of the public debt. It is not in the power of congress to exonerate the bank from the liability to pay, in specie, its deposits made, or notes put into circulation, previously to the passing of any act for that purpose; so that the depositors and holders of its notes are entirely secure from any interposition of the government between themselves and the bank, in violation of the contract held by them. The institution is thus essentially commercial in its character, being directly auxiliary to the government, and subject to its control only as a financial engine. It has had an important influence upon the industry and commerce of the country, and the credit of the government, and has been of immense utility in the management of its finances. But its greatest and most beneficial influence has been felt in the restoration of the currency to a sound state; for, at the time of its going into operation, many of the state banks had an immense amount of unredeemable paper in circulation, purporting, it is true, to be payable to the bearer, in specie, on presentment for that purpose, but which was not, in fact, so paid. Immediately on the bank of the U. States going into operation, with its various branches in the principal commercial cities, it became necessary for all the other banks, within the circle of its influence, to resume specie payments, or discontinue their operations. Those which had not resources to resume specie payments necessarily stopped; and the consequence of the influence of this institution is, a complete restoration of the currency to specie or its equivalent. In fine, whether we consider the extent of the capital of the institution, that of its operation, or its commercial and financial utility and influence, it may justly be considered the second institution of the kind

in the world, ranking, in all these respects, next after that of England. The stock was made the subject of speculation soon after its establishment, and rose, at one time, to the enormous advance of 56 per cent. upon the original subscription; but the great losses incurred by some of the branches, especially those of the new states, and other causes, subsequently reduced it to 10 per cent. discount on its original subscription value. It has since risen to a more steady market value of about 20 to 25 per cent. advance. The amount of the circulation for 1828 was, on an average, between \$12,000,000 and \$13,000,000. The deposits for the same year averaged from \$13,000,000 to \$14,000,000. The dividends have varied from 5 to 6 per cent. In January, 1829, there were 21 offices of discount, besides the bank at Philadelphia; namely, at Portland, Portsmouth, Boston, Providence, Hartford, New York, Baltimore, Washington, Richmond, Norfolk, Fayetteville, Charleston, Savannah, Mobile, New Orleans, Nashville, Louisville, Lexington, Cincinnati, Pittsburg, Chillicothe.—Besides the bank of the U. States, there are, in the U. States, more than 350 banking companies, incorporated by the several states, in active operation, and in good credit, besides 50 or 60 of doubtful standing. The amounts of capital vary from \$50,000 to \$3,000,000. The whole banking capital of the country was stated, in 1804, to be \$26,707,000, and, in 1813, \$77,158,000. It must have increased greatly since that time, but the amount is not easily ascertained with precision.

BANKRUPT is derived, generally, from *bancus*, a bench, and *ruptus*, broken, in allusion to the benches formerly used by the money-lenders in Italy, which were broken in case of their failure. This word signifies, in its most general sense, an *insolvent person*, but, more strictly, an *insolvent merchant*. There is, perhaps, no branch of legislation more difficult, and at the same time more important, than that which defines the relations of debtors and creditors. One of the first objects of all laws, after the protection of the person, is, the enforcement of the obligation of contracts, and, among all the contracts made in a community, those imposing the obligation to pay money constitute the most numerous class. Some of the first questions in legislation are,—By what measures shall this obligation be enforced? and by what penalties shall the breach of it be punished? In many communities, especially in the earlier

stages of civilization, the breach of such a contract or obligation is regarded as a crime, and the insolvent debtor treated as a criminal. The ancient laws upon this subject, in England, regard the insolvent trader in this light. The early laws of the Romans and Athenians authorized the most rigorous measures for procuring satisfaction of a debt, even permitting the sale of the debtor into slavery for this purpose. And the Battas of Sumatra are said to sell, not only the debtor, but also his family, for the benefit of the creditor. But as civilization advances, the laws put a more mild construction upon the debtor's failure to fulfil his contract, and, with certain qualifications, and under certain restrictions, attribute it to misfortune, and, on his giving up his property to be divided among his creditors, discharge him from all further liability. Both by the French code and the English statutes, the persons capable of becoming bankrupts are such as fall under the general description of *merchants*: the French code describes them as *commerçants*; the English statute of 6 Geo. IV, c. 16, s. 2, embodying the previous acts and judicial decisions on this subject, enumerates particularly the descriptions of persons who are to be considered *bankrupts*, and capable of becoming *bankrupts*; and the statute of 33 Geo. III, relating to bankrupts in Scotland, describes a person capable of becoming such to be one who, "either for himself, or as agent for others, seeks his living by buying and selling, or by the workmanship of goods or commodities."

The power of making bankrupt laws, in the U. States, is, by the constitution, conferred on congress, and was generally understood to be exclusively vested in that body. The question how far the several states may legislate upon this subject, has been discussed in the supreme court of the U. States, in a number of cases arising under the state insolvent laws. In the case of *Ogden v. Saunders*, it was settled that a state insolvent law, whereby it is provided that a debtor, on giving up his property to his creditors, is absolutely discharged from further liability, will, as long as there is no act of congress on bankruptcy, be valid, in respect to creditors residing in such state, and to contracts made in the state subsequently to the passing of such law. According to this decision, an insolvent law of a state, however general in its provisions, can have only a partial operation as a bankrupt law; but, in the cases completely

within the jurisdiction of the states, may have all the essential operation of such a law, not being limited to a mere discharge of the *person* of the debtor on his surrendering his effects. This decision recognised in the states larger powers than had previously been supposed to have been retained by them. But congress alone has the power to make a bankrupt law, which shall be applicable to, and binding upon, all creditors in the U. States, and all descriptions of debts. This power was exercised by congress, in 1800, by the enactment of a bankrupt law, limited to five years, and which expired by its own limitation. This act was modelled upon the English statutes of bankruptcy existing at the time, and, like them, was applicable to no debtors except merchants. —By the French mercantile law, a bankrupt merchant must, within three days after stopping payment, give notice of it to the tribunal of commerce, which, even if the notice is not given immediately, proceeds, at the request of the creditors, or by virtue of its own authority without any petition, or on motion of the king's *procureur*, to put the debtor's store-house, counting-house, effects, books and papers under seal, also to appoint a commissioner from its own body, and several sworn agents, who give security for the faithful discharge of their trust, and to put the bankrupt in prison or under arrest and *surveillance*, from which, however, after an investigation of his affairs, he may be released, either unconditionally, or on giving bail. From the day of his failure, the bankrupt is divested of all his interest and title in his property, and, during the ten days preceding, no one can acquire any right in it, by pledge or mortgage; and any gratuitous transfer by him during that time is void, and any transfer made for consideration may be annulled, if attended with circumstances indicating fraud. And all acts done or contracts made by him, in fraud of his creditors, are void. An advertisement of the bankruptcy must be posted up in public places, and inserted in the gazette. The agents above-mentioned continue to manage the affairs of the bankrupt only 14 days, or until the appointment of the provisional *syndics* (trustees). The commissioner, within three days after the bankrupt's *leger* has been put into his hands, makes a catalogue of the creditors, and convenes them by means of letters and the public papers. The creditors assemble at the fixed time and place, in the presence of the commissioner, to whom they deliver

a list containing three times as many names, as, in their opinion, there should be persons appointed provisional trustees (*syndics provisoires*) of the property. From this list the requisite number is appointed by the tribunal of commerce. Within 24 hours after the appointment of trustees, the functions of the agents cease, and they render their account to the trustees, who, under the superintendence of the commissioner, now have the management of all the affairs of the bankrupt. They immediately remove the seals, and take an inventory of the bankrupt's effects, in the presence of a justice of the peace, with the aid of the bankrupt. Within eight days from entering upon office, they render to the king's *procureur* a report of the state of the bankrupt's affairs, and take charge of, and administer upon, his estate. The moneys received are placed in a chest with a double lock, of which the oldest trustee has one key, and the other is given to a creditor, selected by the commissioner. Every week, the commissioner is furnished with the cash account of the trustees, and may, upon their suggestion and that of the creditors, if he thinks it advisable, put the money already received at interest. It is the duty of the trustees to call in the debts of the bankrupt, and to have any mortgages made to him recorded, if he has not had it done himself; likewise to summon, without delay, all the creditors, by letter or the public papers, to appear before them within 40 days, personally or by attorney, to prove their claims, present their vouchers, or deposit them with the tribunal of commerce. The examination of claims is made within 14 days after the expiration of the 40 days, and every creditor, whose claims have been allowed, is at liberty to be present at the discussion of others' claims, and offer objections. After the claims have been discussed, each creditor must deliver, within eight days, an affidavit to the commissioner, that his demands are true. Whether a process shall be allowed, to establish the contested claims, rests on the decision of the tribunal of commerce. After the expiration of the time fixed for allowing claims, it is the duty of the trustees to take note of the creditors who do not appear; the commissioner gives information of them to the tribunal of commerce, which now assigns an additional period for their appearance, which, in respect to inhabitants of the kingdom, is regulated by the distance of their residence, one day being allowed for every three *myria-*

metres, about 18½ English miles. In cases of foreign creditors, longer delays are allowed. After the expiration of this period, those who do not appear are excluded from a future dividend. Within three days after the period assigned for making affidavit, the creditors whose claims are allowed, are convened, and the state of the bankrupt's property is laid before them in the presence of the commissioner and the bankrupt. This is the time for the accord, which may take place if acceded to by the majority of the creditors, the sum of whose claims constitutes at least three fourths of the amount of debts to be liquidated. Creditors who hold collateral security for their debts have no voice in the decision. In case of presumption of fraud, from an examination of the bankrupt's books and papers, no accord is valid. If an accord is made, it must be signed during this sitting. Whoever is against it, is allowed a space of eight days to exhibit his objections. The accord, when legally ratified, restores the bankrupt to his former situation. If no accord is effected, the assembled creditors have to appoint definitive trustees (*syndics définitifs*), and a cashier to receive the moneys arising from the income or sale of the bankrupt's property. The duties of these definitive trustees are the same with those of the provisional trustees and the agents whom they succeeded; and the provisional trustees account and transfer the affairs over to the definitive, in the same manner as the agents had done to them. Monthly reports are made to the commissioner, who now has to fix the dividends. Prior to the final division, the creditors are convened, under the superintendence of the commissioner, and the final account is submitted by the trustees. The commissioner, on the suggestion of the syndics, assigns to the bankrupt's family their apparel and household furniture. Wives, married with a stipulation for separate property, or for community of goods accompanied with a separate interest in immovable property, retain the estate to which they are thus entitled, and also such as may have accrued to them by succession or donation. They are also entitled to retain personal property acquired by them, if it is the proceeds of such estate, and the right to employ such estate has been secured to them at the time when it came into their possession. Except in such cases, the presumption of law is, that property acquired by the wife has been paid for from the estate of the husband, and it is to be considered as

belonging to him, unless she can substantiate her claim to it. She has a right, however, to articles of dress and furniture proved to belong to her by the marriage contract, or to have fallen to her by inheritance. Goods sold to the bankrupt may be reclaimed by the vender, if they are still *in transitu*, and not yet delivered at the store-house of the bankrupt, and have not been sold by him on authority of the bill of lading, or other sufficient authority. But all the bankrupt's advances for freight, charges, &c., on account of the goods, must first be refunded. And so the price, for which the goods consigned to the bankrupt for sale, on account and risk of the consignor, have been sold by him to third persons, may be claimed by the consignor, if it has not been paid to the bankrupt, or passed into the accounts between him and the consignor. The simple bankrupt (that is, he who is convicted of mere negligence) is liable to imprisonment for a time not less than one month, nor more than two years. The fraudulent bankrupt is condemned to hard labor (*travaux forcés*) for a definite time.—By the English statute of 6 Geo. IV, it is made an act of bankruptcy for a debtor to depart the realm, remain abroad, leave his house, shut himself up in his house, suffer himself to be arrested for a debt not due, yield himself up to be put in prison, suffer himself to be outlawed, procure himself to be arrested, or his goods to be attached, or make transfers of his lands or goods, *with intent to defraud his creditors*. So it is an act of bankruptcy in a debtor, on commitment for debt, to lie in prison 20 days, or escape from prison. A man may become a bankrupt, also, by declaring himself such at the bankrupt office. Where the debtor does not so declare himself bankrupt, proceedings are commenced against him as such, on petition to the chancellor, by one creditor to the amount of £100, or two or more to the amount of £150. And in case the petitioners do not establish the bankruptcy, they are liable for the costs of the proceedings, and damages to the party petitioned against. The act extends to aliens, denizens and women. On a petition being made, the lord chancellor appoints commissioners, to take charge of the body, lands and effects of the party petitioned against. These commissioners proceed to take testimony that the petitioners are creditors, that the debtor is a merchant or trader within the meaning of the statute, and that he has committed an act of bankruptcy. These facts being established, they adjudge that

he is a bankrupt, and give notice thereof in the London Gazette. The commissioners are invested with ample powers for getting possession of the bankrupt's person and effects. They assign all his property, real and personal, to assignees appointed by themselves, and these assignees subsequently assign it over to other assignees, appointed at the second meeting of the creditors, in case of such other assignees being so appointed, and approved by the commissioners. Creditors, whose debts are not due, are allowed to prove them, discounting interest. Sureties and bail for the bankrupt, when they pay the whole debt for which they are bound, may represent their claims under the commission, and receive the dividends that would otherwise have been assigned to the party to whom they pay the debt, even if it is not paid until after the commission issues. Persons holding policies of insurance signed by the bankrupt, may also present their claims, and if the contingency, whereby they would be entitled to a loss, happens before the commission is closed, their claims will be allowed. An annuity creditor is also admitted to prove; likewise sureties on an annuity bond, and any creditor whose debt depends on a contingency, if the contingency take effect pending the commission. The conveyance made to the assignees will transfer to them, for the benefit of the creditors, all goods of any other person in the possession of the bankrupt at the time of the failure, and, by permission of the owner, reputed to belong to the bankrupt. Conveyances and transfers made by the bankrupt after he shall have been insolvent, except upon consideration of marriage, or other good consideration, are void, and the property so transferred is disposed of by the assignees for the benefit of the creditors. The assignees may, at their election, assume any subsisting lease held by the bankrupt, or any agreement by him to purchase lands. The bankruptcy dissolves articles of apprenticeship entered into with the bankrupt, and if he has received any apprentice's fee, on account of taking an apprentice, a part or the whole of it is returned by the commissioners. The assignees may execute any powers vested in the bankrupt, which he might have executed for his own benefit. If the bankrupt was trustee of property, the chancellor appoints others in his stead. Conveyances by, and contracts and transactions by and with, the bankrupt, *bona fide*, and executions levied more than two

months before the issuing of the commission, though after the act of bankruptcy, are valid if the other party had no notice of the previous act of bankruptcy. Payments made at any time before the bankruptcy are also valid. The creditors appoint a receiver of the money, the proceeds of the bankrupt's property. The money must be vested in exchequer bills on interest, if so directed by the commissioners. The first dividend is made at the end of 12, and the final one at the end of 18 months. In case the bankrupt does not surrender himself within 42 days after notice, or appear, as required, from time to time, to be examined on oath before the commissioners, or does not discover all his property, or deliver up all his books and papers relating thereto, or conceals and embezzles property to the value of £10, or papers relating thereto, he is deemed guilty of felony, and liable to be transported for life, or for a term not less than seven years. During his examination, an allowance is made to him for the support of his family. The bankrupt is absolutely discharged from all his debts and liabilities subsisting at the time of his becoming bankrupt, in case of his obtaining, and the lord chancellor's allowing, a certificate of four fifths in *number and value* of creditors to the amount of £20 each, or, after six months from the time of his last examination, of three fifths in *number and value* of such creditors, or nine tenths in *number*, that he has duly surrendered, and in all things conformed to the requisitions of the act. All contracts to induce creditors to sign the certificate are void. But, if it be a second case of the debtor's bankruptcy, his certificate will not exempt his future property and earnings from liability to his creditors, unless the dividends amount to 15s. in the pound. A bankrupt who obtains his certificate, if the dividends amount to 10s. in the pound, is allowed 5 per cent. on the amount, not exceeding £400; and if the dividends amount to 12s. 6d. in the pound, he is allowed 7½ per cent., not exceeding £500; and if the dividends amount to 15s. in the pound, he is allowed 10 per cent., not exceeding £600: but if they are less than 10s. in the pound, he is only allowed such sum as the assignees and commissioners may think fit, not over 3 per cent., nor exceeding £300. But the bankrupt is not entitled to a certificate, if he has lost, in gambling, within 12 months, £200, or £20 in any one day in that time; or if he has lost £200 in stockjobbing, or has caused false

entries in his books, and mutilated or falsified papers to defraud his creditors, or connived at any person's proving a fictitious debt under the commission. If the bankrupt or his friends propose a composition which is accepted by nine tenths of his creditors in number and value, the commission of bankruptcy will be superseded.—In Holland, there has existed, since 1643, in Amsterdam and other commercial cities, a court (*Kamer van desolade Boedels*), consisting of an equal number of lawyers and merchants, who assemble twice a week, to take cognizance of the bankruptcies that may occur. When a person becomes insolvent, this court appoints two commissioners (a merchant and a lawyer), to take charge of his affairs, who, with a secretary, immediately repair to the bankrupt's, seal up and make an inventory of his property, take possession of his books, &c. The following day, they assemble the creditors living in the place, and make a report; at the same time assigning certain days for the future meetings of the creditors. Two or three creditors are now appointed to take possession of the property of the bankrupt and administer it, and attend to the substantiation of claims. From this time the bankrupt has a month to propose an accord to his creditors, which the commissioners make known to creditors, abroad and at home, by public advertisements. If a creditor has any objections to it, he must urge them strenuously. To have any respect paid them, they must be made by a principal creditor, whose claims amount to one fifth or one sixth, or by two or more, whose joint claims amount to one twenty-fifth. If no accord is effected, the bankrupt is declared insolvent by the commissioners, his property is put in trust, and the former sequestrators are changed into trustees, who, with the aid of a book-keeper, proceed to the examination of claims. The insolvency is now reckoned from the sequestration, and all transfers, &c., made in the four weeks previous, are regarded as null and void. These trustees now ascertain the amount of property and debts, and make a dividend, though the last dividend must be made 18 months after the assignment. The allowance made the bankrupt is from 3 to 10 per cent., in proportion to the dividend; but it can never exceed 10,000 florins. If the bankrupt is not found chargeable with fraud, he may obtain a certificate, which must be signed by the trustees, and the creditors, at least one half in number and five eighths in value,

or five eighths in number and one half in value, and which not only restores him to his former standing, but secures him from all subsequent demands of former creditors.—Denmark, also, has a distinct court of distribution (*Skifteret*), which appoints trustees, who divide the estate of the bankrupt among the creditors, under the approbation of the court. No creditor can be appointed a trustee.—In Sweden, the debtor, from the time of giving notice of his insolvency, must keep his house. The creditors of the place and neighborhood are forthwith called together; the bankrupt makes oath of his property; and the estate is given, in provisional trust, to two or more men. All the creditors are now publicly invited to prove their demands at the end of six months. The creditors must appear, before 12 o'clock, on the fixed day; their information is read, and, if possible, on the same day, oath is made of the justice of their claims. Two trustees, chosen by the creditors, now take charge of the estate. Three weeks after the first meeting of the creditors, a second takes place, and, 14 days afterwards, they are again assembled, and receive a dividend.—All these laws are more judicious than the common German law on the same subject, which is, indeed, in commercial cities, frequently superseded by special law. The delays and expenses of the German bankrupt system are carried to a great extent, and even the most equitable judge is often unable to prevent fraud and abuse. The tedious public citations; the various processes of liquidation; the admission of legal measures, involving delay; the frequent disputes respecting right of priority;—all these have the effect of inspiring merchants, foreigners especially, with a dislike of the system, and inducing them, if possible, to come to a voluntary composition. More than half the estate of the bankrupt is often exhausted by the costs, or by the unavoidable delay of its conversion into money, and there are instances of 100 years having elapsed before a final settlement. The punishment of negligent and fraudulent bankrupts is usually confinement in prison or the workhouse.

BANKRUPTCY, NATIONAL. (See *National Bankruptcy*.)

BANKS, sir Joseph, baronet, born in Lincolnshire, 1743, a naturalist, sprung from a family of Swedish origin, which had settled in England a century before, and from which the attorney and tragic poet John Banks was also descended. He studied at Eton and Oxford till 1761.

He then visited Hudson's bay, for the purpose of making researches in natural history, and, together with his friend doctor Solander, accompanied Cook on his voyage of discovery. In an expedition into the interior of the desolate Terra del Fuego, for the purpose of examining the country, the two naturalists narrowly escaped perishing with cold. B. introduced the bread-tree into the American islands, and he wrote the botanical observations in the account of Cook's voyages. In 1771, the university of Oxford conferred on him the degree of doctor of laws. In 1772, he visited Iceland, in order to make himself acquainted with its natural productions. After the resignation of sir John Pringle, in 1778, B. was chosen president of the royal society; but, in 1784, he was violently assailed by some of the most distinguished members, on account of his behavior towards doctor Hutton, and his disregard to the mathematical part of the society. In 1781, he was made a baronet. The French chose him a member of the national institute, in 1801, because to his intercession they owed the recovery of the papers of La Peyrouse, relating to his voyage, which had fallen into the hands of the English. His library, and his collections in natural history, are unequalled. Besides some essays, periodical publications, and some contributions to the transactions of learned societies, he wrote nothing but a Short Account of the Causes of the Blight, the Mildew, and the Rust in Corn, 1805. He died June 19, 1820. After the death of Mr. Brown, his librarian, his collections will be added to the British museum.

BANKS, Thomas, an English sculptor, was born in 1735. He studied sculpture, with great success, in the royal academy, and was elected to be sent, as one of its students, to Italy. Here he executed several excellent pieces, particularly a *basso relievo* representing Caractacus brought prisoner to Rome, in the possession of the duke of Buckingham; and a Cupid catching a butterfly, which was afterwards purchased by the empress Catharine. From Italy he repaired to Russia, where he staid for two years without meeting with any adequate encouragement, when he returned to his own country. Among other works executed by him, was a colossal statue, exhibiting Achilles mourning the loss of Briseis, now in the hall of the British institution. He is also the sculptor of the admired monument of sir Eyre Coote in Westminster abbey. Mr. Banks was elected a

member of the royal academy not long after his return from Russia, and finished a life of arduous exertion in Feb., 1805.

BANN. (See *Ban*.)

BANNEC; an island in the English channel, near the coast of France. Lon. 4° 55' W.; lat. 48° 25' N.

BANNER; a word found in all the modern languages of western Europe, the origin of which, however, is given in many very different ways. It signifies the colors, or standard. Among the ancient Germans, if a knight was able to lead 10 helmets, i. e. 10 other knights, against the enemy, the duke (*herzog*) gave him a banner, and he was called a banneret (*bannerherr*). In some republics, banneret or standard-bearer was the title of one of the highest officers, as the *gonfaloniere* of Florence and other Italian republics, and the *bannerherr* in the Swiss republics. Banneret, in England, was a knight made in the field, with the ceremony of cutting off the point of his standard, and making it a banner—a custom which has long since ceased. Several banners are famous in history, as the Danish banner, taken from the Danes by Alfred the Great, the *oriflamme* (q. v.), &c. Catholic churches generally have their banners.

BANNOCKBURN; a village of Scotland, in Stirlingshire, seated on the Bannock, famous for the decisive battle fought near it between king Robert Bruce of Scotland and Edward II of England, 1314 A. C., in which the English were defeated.

BANQUETTE, in fortification; the elevation of earth behind a parapet, on which the garrison of a fortress may stand, on the approach of an enemy, in order to fire upon them. The height of the parapet above the banquette (the height of defence), is usually about four feet six inches; the breadth of the banquette, when it is occupied by one rank, two and a half to three feet; when it is occupied by two ranks, four to six feet. It is frequently made double, that is, a second is made still lower.

BANQUO, or BANCHO; thane of Lochaber, the grandfather of Walter, the first lord high steward of Scotland, and the progenitor of the royal house of Stewart. He gained several great victories over the Highlanders and Danes, in the reign of Donald VII, but tarnished his glory by joining Macbeth in the conspiracy against that monarch. He was murdered by Macbeth, about 1046.

BANS OF MATRIMONY is the giving public notice, or making proclamation, of a mat-

rimonial contract, and the intended celebration of the marriage of the parties in pursuance of such contract, to the end that persons objecting, either on account of kindred, precontract, or for other just cause, may have opportunity to declare such objections before the marriage is solemnized. The notice is given either by proclamation, *viva voce*, by a minister or some public officer thereto authorized, in some religious or other public assembly, or by posting up written notice in some public place.

BAOBAB, or **BAHOBAB**; a tree (*Adansonia digitata*, Wild.). It is the largest production of the whole vegetable kingdom. The trunk is not above 12 feet high, but it is from 60 to 85 feet round; the weight of the lower branches bends them to the ground, so that they form a hemispherical mass of verdure about 120, sometimes 150, feet in diameter. The flowers are in proportion to the size of the tree, and followed by a fruit, about 10 inches long. When dry, the pulp, by which the seeds are surrounded, is powdered, and brought to Europe from the Levant, under the name of *terra sigillata lemnia*; the seeds are called *goui*.

BAOUR-LORMIAN, Louis Pierre Marie François, born, in 1771, in Toulouse, was appointed a member of the French academy, during the "hundred days," in Bouffier's place, and this appointment was confirmed after the second restoration of the king. His reputation as a poet commenced with his translation of Tasso's *Jerusalem Delivered*. Still earlier, his quarrels with the poet Lebrun excited curiosity. Several epigrams, which were exchanged between them, have been preserved. Baour said—

Lebrun de gloire se nourrit,
Aussi voyez comme il maigrit.

Lebrun replied, pretty severely—

Sottise entretient l'embonpoint,
Aussi Baour ne maigrit point.

He wrote, with Etienne, in order to excite the enthusiasm of the French, the opera *Oriflamme*, in Feb., 1814, which was very humorously parodied by Rehfuës (*Die Oriflamme*, Leipsic). In 1824, he published a translation of Dante's *Divina Commedia*. He has since lived in the country, and first broke a long silence by a poem on the coronation of Charles X, for which he received a jewel and a letter of nobility.

BAPHOMET. Joseph von Hammer, the renowned Orientalist in Vienna, has discussed this subject in his essay (in the *Fundgruben des Orients*, 6 vols. 1 numb.)

Mysterium Baphometis revelatum, seu Fratres Militiæ Templi, quæ Gnostici et quidem Ophiani, Apostasia, Idolodulia et Impunitatis convicti, per ipsa eorum Monumenta (Discovery of the Mystery of Baphomet, by which the Knights Templars, like the Gnostics and Ophites, are convicted of Apostasy, of Idolatry and of moral Impurity, by their own Monuments). At the same time appeared a work of his, in which he endeavored to show the connexion of the Templars with the Assassins. He intended to prove, by this, that the order had been justly condemned and abolished, and that its corruption had not originated from intercourse with the Saracens, nor crept in as a particular doctrine and corruption of single chapters, but was common to the whole order, and proceeded from the statutes of their institution. At the same time, von Hammer extends his investigations to the origin of the Freemasons, and to the pretended similarity of their symbols with those of the Templars and Ophites. His chief subject is the images which are called *Baphomet*. They are to be found in several museums and collections of antiquities, as in Weimar (see the drawings in the *Curiositäten*, 2d vol.), and in the imperial cabinet in Vienna. These little images are of stone, partly hermaphrodites, having, generally, two heads or two faces, with a beard, but, in other respects, female figures, most of them accompanied by serpents, the sun and moon, and other strange emblems, and bearing many inscriptions, mostly in Arabic. The author explains 24 of them, partly by means of drawings, and takes them for idols of the Templars. The inscriptions he reduces almost all to *Mete*. This *Mete* is, according to him, not the *Μητις* of the Greeks, but the *Sophia*, *Achamot* *Prunikos* of the Ophites, which was represented half man, half woman, as the symbol of wisdom, unnatural voluptuousness and the principle of sensuality. As every thing which is reported of this *Metis* of the Gnostic Ophites, and all that is known of the worship of images, and of the heads of Baphomet in the chapters, from the accusations and statements on the trial of the Templars, agrees with the figure and the inscriptions of these idols, the true signification of them cannot be doubted. He asserts that those small figures are such as the Templars, according to the statement of a witness, carried with them in their coffers. *Baphomet* signifies *Βαφν Μητις*, baptism of *Metis*, baptism of fire, or the Gnostic baptism, an enlightening of

the mind, which, however, was interpreted by the Ophites, in an obscene sense, as *fleshly union*. This baptism was performed by cups or chalices, accompanied by the symbols of generation and of the mystical meal of the Gnostics, three of which are in the cabinet of antiquities at Vienna, and are represented in the treatise. These vessels are said to have been fixed at the feet of certain images, and to have been filled with fire, by which the initiation in their shameful mysteries was completed in the secret chapters of the Templars. The image of Baphomet was girded with serpents, as a symbol of unnatural sins. In several is to be seen also the T, the truncated cross, the character of Baphomet, which, being put as a part for the whole, was used to signify the instrument of life, the creating wisdom, the key of life; and was also called, by the Ophites, the *tree of life*, and the *key of the Gnosis*. On some images, the serpent is also to be seen, entwined round this cross. Finally, the images of Baphomet exhibit also the sun and moon, which, in the mysteries of the ancients, were of different signification. Von Hammer refers all the signs and images, which are said to be found on the buildings and coins of the Templars, to that infamous mystery. Such bold speculations, in a matter so much investigated, have met with great opposition: in particular, the fundamental assertion, that those idols and cups came from the Templars, has been considered as unfounded, especially as the images known to have existed among the Templars seem rather to be images of saints. Some deny that the word *Mete* is to be found upon these images or any other relics at all, or that it means an *Ophitic Æon*, and assert, that the Ophitic sects were not in existence in the 11th century.—See Raynouard, the defender of the Templars (in the *Journal des Savants*), and de Sacy. Von Nell, also, has written *Baphometische Actenstücke zu dem, durch des Herrn von Hammer Mysterium Baphometis revelatum wieder angeregten, Prozesse gegen die Tempelherren, zur Ehrenrettung des Christlichen Ordens* (Vienna, 1819). In reply, von Hammer, in No. 50 of the Archives of Geogr., History, Politics and Tactics, 1819, pointed out, in the engravings of Nell, not less than eight places containing misrepresentations. In a more recent treatise of Nell—*Essay on a cosmological Interpretation of the Phœnician Worship of the Cabiri* (in the above work, No. 69—75)—the author asserts, that, after a close examination, he

thinks the mysterious monuments, in the imperial cabinet of antiquities, which von Hammer explained as symbols of the Templars, to be alchemico-theosophical symbols, and that even the figure, which was believed to be a *Mete*, was found among the alchemists. We may observe, also, that Nicolai considered the word *Baphomet* as a sign of an abstract notion, as a pentagon drawn round the head of the image; but that von Hammer calls the head of the image, and the image itself, which is to designate the baptism of fire, *Baphomet*.

BAPTISM. As most symbolical ceremonies originate from customs or events of common life, which are afterwards chosen to represent something higher, baptism originated from the bathings and ablutions so frequently practised in Asia, and which, among all the sects of that part of the world, whether heathens, Jews or Mohammedans, have obtained a religious character. Baptism (that is, *dipping, immersing*, from the Greek βαπτίζω) was usual with the Jews even before Christ, and every converted heathen was not only circumcised, but also washed, as a symbol of his entrance into the new religion purified from the stains of his former life. From this baptism of proselytes, however, that of St. John differs, because he baptized Jews, also, as a symbol of the necessity of perfect purification from sin. Jesus himself was baptized by John, as were probably several of his apostles, who had been the disciples of St. John. Christ himself never baptized, but directed his disciples to administer this rite to the converts, using the following words: "Go ye, therefore, and teach all nations, baptizing them in the name of the Father, and of the Son, and of the Holy Ghost" (*Matt.* xxviii. 19). Baptism, therefore, became a religious ceremony among Christians, and is considered as a sacrament by all sects which acknowledge sacraments. In the time of the apostles, the form of baptism was very simple. The person to be baptized was dipped in a river or vessel, with the words which Christ had ordered, and, to express more fully his change of character, generally adopted a new name. The immersion of the whole body was omitted only in the case of the sick, who could not leave their beds. In this case, sprinkling was substituted, which was called *clinic baptism*. The Greek church, as well as the schismatics in the East, retained the custom of immersing the whole body; but the Western church adopted, in the 13th

century, the mode of baptism by sprinkling, which has been continued by the Protestants, the Baptists (q. v.) only excepted. The introduction of this mode of baptism was owing to the great inconvenience which arose from the immersion of the whole body in the northern climates of Europe. The custom of sprinkling thrice, in the administration of the rite, spread with the diffusion of the doctrine of the Trinity. In the first centuries of the Christian era, when, generally speaking, adults only joined the new sect, the converted (catechumens, q. v.) were diligently instructed; the power of this sacrament to procure perfect remission of sins was taught, and, while some converts delayed their baptism from a feeling of sinfulness not yet removed, others did the same from the wish to gratify corrupt desires a little longer, and to have their sins forgiven all at once. But the doctrine of St. Augustine, that the unbaptized were irrevocably damned, changed this delay into haste, and made the baptism of children general. The death of a martyr, however, who perished while yet a catechumen, was accounted equally effectual for salvation with baptism. This was called *baptisma sanguinis* (baptism of blood, q. v.). When, in the 5th century, Christianity became more firmly established, and the fear of the relapse of Christian proselytes into their former faith, which had so often occurred in the period of persecution, diminished, the baptism of children became still more general, and is now the common custom of Christians, with the exception of the Baptists. In America, however, it is not so universally practised as in Europe. The abuse of this rite by the Montanists, in Africa, who baptized even the dead, could be abolished only by severe punishments; but, in Roman Catholic countries, the practice of baptizing church-bells continues to this day—a custom which first came into use in the 10th century. This is done from the belief that the ringing of such bells during a thunder-storm serves to protect the neighborhood. As baptism is a sacrament, and considered by the Catholics so very efficacious, the Roman church has strictly prohibited the re-baptism of baptized heretics, on their conversion to Catholicism. Anti-trinitarians, only, are to be baptized again. Protestants, of course, acknowledge the validity of the baptism of other Protestant sects, as well as of that of the Catholic church. The Roman and Greek Catholics consecrate the water of baptism, but Protestants do

not. The exorcism (q. v.) is not abolished in all Protestant countries. The act of baptism is accompanied only with the formula, that the person is baptized in the name of the Father, Son and Holy Ghost; but this act, among most Christians, is preceded by a confession of faith, made, by the sponsors, in the name of the person to be baptized, if a child. Even in the ancient church, every person, when baptized, was attended by a Christian friend of the same sex, who became responsible for the faith of the new Christian, and promised to take care of his spiritual welfare. The form still remains, though the promise is not very strictly complied with in most cases. After baptism in the Catholic church, the baptized person receives milk and honey, as a symbol of his spiritual youth; and the spiritual privileges which he acquires as a Christian are all indicated by symbols; thus the salt of wisdom is given, the garment of innocence is put on, &c. The Catholic church acknowledges three kinds of baptism, that of water, fire and blood (*baptisma fluminis, flaminis, sanguinis*). The first is the common one; the second is perfect love of God, connected with a sincere and ardent desire to be baptized; the third is the martyrdom of a catechumen for the Christian faith. All three are equal in their effect. The Roman church acknowledges, that all persons not baptized are damned, even infants; but it does not state what they are to suffer; for even St. Augustin, the sternest and severest preacher of this doctrine, deemed it hard that those who had not yet sinned should be damned for eternity in consequence of the sin of Adam; and he thinks that their suffering will be slight. Some scholastic theologians have thought that the pain they were to endure would consist in separation from God. The Jansenists believe in the total damnation of infants not baptized. Dante, who so strictly adhered to the dogmas of his church, but always retained his sensibility to the feelings of humanity, gives, in the 4th canto of his *Inferno*, a place to all virtuous heathens, and infants not baptized, separate from the other part of hell; and it is easily seen with what reluctance he placed them there. (See *Calvin*.)

BAPTISM OF BLOOD. Tertullian gave this name to martyrdom before baptism, and to the death of martyrs in general, which he, and, after him, other Christian fathers, considered as another and more effectual baptism for purification from sins, and urgently recommended to believers.

BAPTISTS; a Protestant sect, distinguished by their opinions respecting the mode and subjects of baptism. With regard to the former, they maintain the necessity of immersion, from the signification of the word βαπτίζω, to dip, used by the sacred writers; from the performance of the rite in rivers in the primitive ages, and from the phraseology used in describing the ceremony. With regard to the subjects, they consider that baptism ought not to be administered to children nor infants at all, nor to adults in general, but to those only who profess repentance and faith. This they defend from the language of scripture, "Repent, and be baptized," &c., and from the existence of catechumens in the ancient churches, who were instructed before they were baptized. They are sometimes called *Anti-pædobaptists*, to express their variance from those who defend infant baptism, and who are called *Pædobaptists*. The peculiar sentiments of this denomination have spread so much among other sects, that we find Baptists equally among Calvinists and Arminians, Trinitarians and Unitarians.—The Baptists, of all descriptions, adopt the Independent or Congregational form of church government, and all their ecclesiastical assemblies disclaim any right to interfere with the concerns of individual churches. The meetings of the members of different congregations are held for the purpose of mutual advice, and not for the general government of the whole body.—The Particular Baptists of England, the Baptists of Scotland and Ireland, the Associated Baptists of America, and some of the Seventh-day Baptists, are Calvinistic. The other classes are Arminian, or at least not Calvinistic. All, except some of the *Christian Society*, are Trinitarians. The Free-will Baptists, the *Christian Society*, and some of the General Baptists of England, admit of open communion: the other bodies decline communion with any Christians but Baptists. Some of the principal divisions are the Particular Baptists, who adopt the doctrine of particular election; the General Baptists, who profess the doctrine of universal redemption. Some of the churches of the latter have three orders, separately ordained—messengers, elders and deacons. The Associated or Calvinistic Baptists of America are the most numerous denomination in the U. States. They had, in 1824, about 150 associations, in which are more than 3000 churches, about 2500 preachers, and 250,000 communicants.—The Seventh-

day Baptists, or Sabbatarians, observe the seventh day of the week. The Free-will Baptists profess the doctrine of free salvation. The first church of this order was gathered in New Hampshire (U. States) in 1780; and there were, in 1824, 10,000 communicants in the U. States. The *Christian Society* is Anti-Calvinistic and Anti-trinitarian. The first church was founded, in 1803, in Portsmouth, N. H.; the number of communicants, in 1824, was about 20,000. Their churches have organized the General *Christian Conference*. They profess to reject useless forms and ceremonies, to use scriptural expressions, and disclaim all creeds and articles of faith.—The Tunkers are distinguished for their simplicity of dress and manners, and for wearing beards. At an early period of the reformation, the subject of infant baptism was discussed. The Anabaptists (q. v.) are not, however, to be confounded with the Baptists, by whom their principles were expressly disclaimed. The persecution of dissenters, in the reign of Elizabeth, gave rise to the foundation of the first regular church of this sect, though their principles had prevailed much earlier. We may date the first public acknowledgment of the Baptists as distinct from the Anabaptists from their petition to parliament in 1620. In 1623, they are described as carrying an external appearance of holiness, as denying the doctrines of predestination, reprobation, &c. It is therefore probable that the Baptists of that time were General Baptists. The year 1633 provides us with the earliest records remaining of the formation of a Particular Baptist church in London. Between these two denominations, there never has been much intercourse. Both of them have repeatedly and publicly disclaimed anabaptism. The Particular Baptists have never had any material dispute amongst their members, except upon a point agitated also amongst the General Baptists—that of mixed communion: the question is, whether persons baptized in infancy, and not re-baptized at full age, may be admitted to partake the sacrament in their congregation.—The whole number of Baptist churches in the U. States was, in 1824, about 5600; that of the communicants about 407,684. (For information on the peculiar tenets of the Baptists, see the works of Drs. Gill and Gale, Abraham Booth, and Wall's *History of Infant Baptism*. See, also, *Anabaptist and Mission*.)

BAR; the partition which separates the

members of a court from those who have to report or to hear. The English parliament, also, has at its entrance such bars; and the national convention of France adopted this arrangement, and the custom of summoning before their bar all from whom it desired information. This encroachment on the executive and judiciary branches of government, by a body whose proper business was deliberation and discussion, was the cause of many of the horrors of the revolution. At the time when 50 lives were daily sacrificed, in Paris, under Robespierre, when the monster Carrier, at Nantes, caused 300 innocent children to be drowned in one night, the national convention had not the courage to expel the wretches who interrupted their labors by singing patriotic songs at the bar. However, on the 16th March, 1794, they issued a decree—*que dorénavant on n'entendra plus à la barre de la Convention que la raison en prose.*

BARATARIA; a bay and island of Louisiana, on the north side of the gulf of Mexico; 55 miles N. W. of the Balize; lon. 90° W.; lat. 29° N. The bay is about 18 miles in length, and at its entrance is the island, which is a strong military position, and affords a safe and capacious harbor for merchant vessels, and light ships of war. This island was the noted resort of La Fitte's piratical squadron, by whom it was fortified at both ends, in 1811. The adjacent country is an open, level region, and to the north is a fine tract, well adapted to the cultivation of sugar.

BARB. (See *Horse*.)

BARBADOES, one of the Caribbees, and the most eastern of the West India islands, supposed to have been discovered by the Portuguese, but belonging to the English, was settled by the latter in 1605. It lies 20 leagues E. of St. Vincent, 28 S. E. Martinique; lon. 59° W.; lat. 13° 10' N. It is 21 miles long, and 14 broad, containing 106,470 acres, most of which is under cultivation. It is divided into 11 parishes, and contains 4 towns, viz. Bridgetown, the capital, Speight's Town, Austin's Town, and Jamestown. Pop., in 1786, 16,167 whites, 838 free people of color, and 62,115 slaves; in 1811, 16,289 whites, 3,392 free people of color, and 62,258 slaves; total, 81,939. Slaves in 1817, 77,273. According to Humboldt's tables, prepared in 1823-24, B. contained 21,000 free persons and 79,000 slaves; total, 100,000.—The climate is very hot, but the air is pure, and moderated by the constant trade winds; but it is subject to dreadful

hurricanes. The soil in the low lands is black, somewhat reddish in the shallow parts, on the hills of a chalky marl, and near the sea generally sandy. Of this variety of soil, the black mould is best suited to the cultivation of the cane, and, with the aid of manure, has given as great returns of sugar, in favorable seasons, as any in the West Indies, the prime lands of St. Christopher's excepted. The houses of the planters are very numerous all along the country, which, with the luxuriant productions of the soil, and the gently-swelling hills, form a delightful scene. The average annual exports for eight years, from 1740 to 1748, were 13,948 hogsheads of sugar, of 13 cwt. each, 12,884 puncheons of rum, of 100 gallons each, 60 hogsheads of molasses, 4,667 bags of ginger, 600 bags of cotton, and 327 gourds of aloes. The exports, on an average, in 1784, 1785 and 1786, had fallen to 9,554 hogsheads of sugar, 5,448 puncheons of rum, 6,320 bags of ginger, 8,331 bags of cotton, exclusive of some smaller articles. Value of exports in 1809, £450,760; in 1810, £271,597. Imports in 1809, £288,412; in 1810, £311,400.—The Moravians have two missionaries, and the Methodist society one, on this island. (See *West Indies*.) Much information on this island is to be found in Mr. Wilberforce's report to parliament. It is thought that Barbadoes reached its summit of prosperity a hundred years ago.

BARBARELLI. (See *Giorgione*.)

BARBARIAN. The Greeks gave the name *βάρβαρος* to every one who spoke their language badly. The term was afterwards applied to all foreign nations; and, as the civilization of Greece was really much higher than that of the surrounding nations, the idea of *rude, illiterate, uncivilized*, soon connected itself with the word. The Romans, in this, as in many other cases, imitated the Greeks, and applied the term *barbarus* to all nations except themselves and the Greeks—the two most civilized states of antiquity. This word, however, did not always convey the idea of something odious; thus Plautus calls *Nævius barbarum poetam*, because he had not written in Greek. Cicero (*ad Div. ix. 3.*) uses the word *barbari* in reference to illiterate persons, without taste; and we still apply the term *barbarism* to an expression which offends the rules of a language. The signification of *cruelty*, implied in the word, is of modern origin. Arrogant as it may appear to us, to apply a term of contempt to every foreigner, a similar usage has existed, and still exists

to a certain degree, among the European races. These, for a long time, applied the term *savage*, or some corresponding word, to all nations who had not received the Christian faith; and, even at the present time, Christian nations generally seem to consider themselves released from the ordinary rules of morality, when they have to deal with nations of another religion. If the ancients appear to us arrogant in this respect, we must not forget, that they never looked upon the barbarians in the light of inferior beings; never spoke of them, nor conducted towards them, in the style which the Spaniards have used towards the *barbarians* of America, and many other nations besides them towards the *barbarians* of Africa.

BARBARINO, Francesco da; one of the earliest Italian poets. He was born at Barbarino, in Tuscany, in 1264, and studied jurisprudence at Padua and Bologna. He was employed as an ecclesiastical lawyer, and had the degree of doctor of laws conferred on him by pope Clement V. He is reckoned among the founders of Italian literature, on account of his poem entitled *Documenti d'Amore*, which relates to moral philosophy. It was first printed at Rome, in 1640, by Ubaldini. The greater part of his works are lost. Barbarino died of the plague, at Florence, in 1348.

BARBAROSSA; emperor of Germany. (See *Frederic I*.)

BARBAROSSA, Aruch or Horuc; the son of a renegado of Lemnos, and a noted pirate. Having, by his success in piracy on the coast of Barbary, made himself master of 12 galleys stoutly manned with Turks, he rendered himself so formidable, that Selim Eutemi, ruler of the country about Algiers, called in his assistance against the Spaniards. Being admitted into Algiers with his men, he caused Selim to be strangled in a bath, and himself to be proclaimed king. He acted with the greatest tyranny, which produced a revolt among the Arabs, who sought the aid of the king of Tunis. This confederacy was defeated, and Tunis itself taken, of which B. also declared himself the sovereign. He then marched to Tremecen, the prince of which he also defeated, and was admitted into their capital by the people, who first beheaded their fugitive king. The next heir of Tremecen then applied for aid to Gomares, governor of Oran for Charles V, who marched with a powerful army towards Tremecen. B. leaving the town, with his Turks, to meet this new enemy,

the people shut the gates; on which he endeavored to fly, but, being overtaken, fought like a lion in the toils, and was cut to pieces, with all his Turks, in the 44th year of his age, A. D. 1518.

BARBAROSSA, Hayradin or Khayr Eddin; younger brother of the preceding. He was left by Aruch to secure Algiers, when he marched against Tunis, and, on his death, was proclaimed king in his place. Finding his authority insecure, he made application to the Ottoman sultan Soliman, offering to recognise his superiority, and become tributary, provided a force was sent to him sufficient to maintain him in his usurpation. Soliman agreed to his proposals, and, ordering him a reinforcement of janizaries, invested him with the dignity of viceroy or pacha over the kingdom of Algiers. Thus reinforced, Hayradin built a wall for the improvement of the harbor, strengthened it with fortifications, and may be deemed the founder of that mischievous seat of piracy, as it has ever since existed. Such was his reputation for naval and military talents, that Soliman II made him his capitan pacha. In this capacity, he signalized himself by a long course of exploits against the Venetians and Genoese; and, in 1543, when Francis I made a league with Soliman, B. left Constantinople, and, with a powerful fleet, having the French ambassador on board, took Reggio, and sacked the coast of Italy. In conjunction with the French, he also besieged and took Nice, and, refitting, during the winter, at Toulon, again ravaged the coasts and islands of Italy in the ensuing spring, and returned with many prisoners and much spoil to Constantinople. From this time he seems to have declined active service, and to have given himself up to a voluptuous life among his female captives, until the age of 80, when he died, and his successor Hassan became possessed of his authority and riches. With the ferocity of a Turk and a corsair, he possessed some generous sentiments, and obtained a character for honor and fidelity in his engagements.

BARBARY STATES. The states of Barbary lie on the northern coast of Africa, westerly from Egypt, as far as the Atlantic ocean. They are, Tripoli (including Barca), Tunis, Algiers, Fez and Morocco. They are, with the exception of some little republics in Barca, all seats of the military despotism of the Turks and Moors. This tract of land, of 741,650 square miles, is intersected by the Atlas mountains, whose highest summits are

constantly covered with snow. The loftiest among them, not far from the city of Morocco, is 12,000 feet high. On the coast, a mild, healthy, spring-like breeze prevails the whole year, except in July and August, when the suffocating south wind blows. The plague is never generated here, but is brought from Constantinople.—The ground is fruitful in those places where it is watered by rivers running from the Atlas mountains into the Mediterranean. From July till October, when all other plants are scorched up by the sun, the oleander still survives to enliven the landscape. In winter, the ground is watered by frequent and violent showers. In January, the meadows are already adorned with verdure. In April and May, the whole country is covered with flowers. The moisture and warmth impart to the productions of the soil an uncommon vigor and an exuberant growth. Barley is the most important production. Wheat, maize, millet, rice, and a kind of pulse (in Spanish, *garbanços*), which are eaten roasted, in large quantities, are generally cultivated. The Indian fig-tree, which takes root easily, forms impenetrable hedges for gardens and vineyards. The vine stretches itself, in beautiful windings, from one tree to another. Its trunk is often as large as that of a common-sized tree. Everywhere are seen well-cultivated olive-gardens. The pomegranates are three times as large as in Italy. Excellent oranges ripen in great quantities. Melons, cucumbers, cabbages, lettuce, abound. The artichoke grows wild. The henna is raised in the gardens. The acorns of the *quercus ballota*, with a high trunk, an article of food of the inhabitants, taste like wild chestnuts. The tall, tapering cypress, the cedar, the almond-tree, the white mulberry-tree, the *indigofera glauca* (which is important for dyeing), the *cineraria* of the meadows (which is efficacious against the stone), the fragrant *cistus*, the splendid *cactus*, grow every where. The hills are covered with thyme and rosemary, which purify the air, and serve for fire-wood. In all directions are seen bushes of white roses, from which is extracted the purest essence. The sugarcane flourishes excellently. An inferior variety of this, called *soliman*, reaches a considerable height, and is more juicy than any other in the world. The lotus and the palm-tree are of the greatest advantage to the inhabitants. The fan-palm grows on the whole coast; the date-palm, in the parts which lie nearer

to the desert of Sahara. There are, along the coast, woods of the cork-tree. Gum is obtained from the acacia-tree.—Among the useful animals, the camel holds the highest place. Greater care might be bestowed on the breeding of horses and buffaloes. Sheep with fat tails are common. Wild boars and many other species of game are abundant. In the interior of the country are apes, jackals, hyenas, lions, panthers, ounces, and the gentle gazelles. Ostriches live in the desert. Birds are numerous, as are, also, locusts, gnats, flies, bugs, toads and serpents, the latter from 9 to 12 feet long; river and sea-fish and turtles in abundance. The bees deposit excellent honey in the rocks and trees. The art of mining is neglected; but there is much iron, copper, lead, tin, sulphur, many mineral-springs, much gypsum, lime-stone, good clays, &c., together with salt from springs and the sea, in abundance.—This extensive and beautiful country, separated from Europe only by a sea of no great width, has often been the centre of an advanced civilization. It was distinguished for prosperity, population and industry, under the Carthaginians, Romans, Vandals and Arabians. Its commercial advantages are very great. Its intercourse with the coasts of Europe is far more easy and quick than the intercourse of those coasts with their own capital cities, and the transportation of goods is less expensive from Marseilles and Genoa to Tunis and Algiers than to Paris, or even to Turin and Milan. Cato showed to the Roman senate fresh figs, which were gathered under the walls of Carthage; yet this fruit, except in its dried state, is not edible after three days from the time of gathering. The whole country can support 60 millions of inhabitants, and now hardly contains 10 millions and a half. Next to Egypt, it was the richest and most productive Roman province, and one of the granaries of the mistress of the world. The Roman writers called it *the soul of the republic, the jewel of the empire, speciositas totius terræ florentis*, and the wealthy citizens considered the possession of palaces and country-houses on this beautiful coast as the highest happiness. The little Arabian courts, too, of Fez, Tetuan, Tremecen, Garbo, Constantine, sedulously encouraged the arts and agriculture. Amalfi, Naples, Messina, Pisa, Genoa and Florence, enriched themselves by their commercial intercourse with this fine country, and the Venetian ships visited all the cities of the African coast. Three centuries ago, an

end was put to all this prosperity. The land became the abode of crime and misery, the prey of 13—14000 adventurers, collected together from another part of the world, and detested by the native inhabitants. The inhabitants of the country are divided into Cabyles, Moors and Arabs, Negroes, Jews and Turks. First, the original inhabitants, called, also, *Barabra* or *Berbers* (hence *Barbary*), dwell in the mountains in small villages. The Guanches, in the Canaries, were also Berbers. These are wild, athletic, well-formed men, of great muscular strength, who bear with ease hunger, and hardships of all kinds. All the branches of this race are distinguished by thin beards. They are, for the most part, robbers, inhuman and faithless; yet they practise hospitality, and travellers are secure under their protection. Jealous of their liberty, they are subject to their sovereign only in name, and usually carry on war with the troops employed in collecting the taxes. They prepare their fire-arms themselves, and are good marksmen. The shepherds, on the high mountains, dwell in caves, like the ancient Troglodytes. The Schilluh-Berbers, in Morocco, are the most implacable and vindictive. The most numerous people of Northern Africa are the Arabs. Those who dwell in cities are particularly called *Moors*; those who wander over the country, and live in tents, are called *Bedouins*. The last are descended from the Saracens, the first conquerors of the country. They are large, muscular, with spirited, handsome countenances, large, black, piercing eyes, noses somewhat aquiline, regular teeth, white as ivory, a full, strong beard, and black hair. The complexion of the people, in the northern parts, is light brown, and, toward the south, becomes darker, till at last it is entirely black, but without the Negro physiognomy, which first shows itself in Soudan. The Arab natives are, for the most part, a wandering race, dwelling in tents, in bodies of from 10 or 12 to 100 families, in the patriarchal manner, every family under a sheik, who explains the Koran, administers justice, and adjusts quarrels. They carry on a constant war, in the most savage manner, either with the Berbers, or with the collectors of tribute, sent by their sovereign. Their business is war; their income, plunder. When they are not engaged in war with their neighbors, they enter, as auxiliaries, the service of the deys. They universally hate the Christians, yet they are less

dissembling and deceitful than the Moors and Berbers. The right of hospitality is of avail only within their little camps.—The Moors are a mixture of all the nations which have settled in Northern Africa, but, in their principal characteristics, are Arabs. They call themselves *Moslems* (that is, *believers*), or *Medains* (that is, *inhabitants of cities*). As zealous professors of Mohammed's doctrine, they despise and hate Christians and Jews. They are jealous, suspicious, unsocial, dissembling, cruel, incapable of love and friendship; moreover, so idle and inactive, that they sit whole days with their legs crossed under them, leaning against the wall, and, without uttering a word, gaze at the passers by. There is no longer any trace of the intellectual cultivation which they had attained in the middle ages, under a better government, in Spain. They are in the highest degree superstitious, and, in their eyes, it is a crime merely to possess a printed book. The Moor never laughs: serious, and, to all appearance, absorbed in thought, he gives no sign of a desire of knowledge, or of intellectual action. His greatest pleasure is, to go into the bath, to drink coffee, and to hear stories. The usual food of this people is cuscusoo, a kind of macaroni. The inhabitants of Morocco drink also much tea. The belief prevails universally among the Moors, that, at some future time, on a festival day, at the hour of prayer, they will be attacked and subdued by a people clothed in red. In their blind fatalism, they bear with indifference every change of condition, and die quietly under the severest pain, if they can only lie with their faces turned towards Mecca.—Free Negroes have settled among the Moors, and, in Morocco, even fill the offices of state, and serve in the army.—Jews are scattered over the whole of Barbary. They carry on the foreign trade. They are descended from the first colony of Israelites from Phœnicia, increased by the hundreds of thousands who were banished from Spain and Portugal. Notwithstanding the contempt in which they live, separated, in a narrow district, from the rest of the inhabitants of the cities, insulted by the common people, and oppressed by the rich, yet all business is done by them. The ignorant Moorish rulers farm out to Jews their revenues, and choose from among them their men of business, tax-gatherers, secretaries, interpreters, &c. They coin the money, and manufacture ornaments of all kinds. Heavy taxes are imposed on them, ac-

cording to their age. Seldom is a murder punished which a Moor commits upon a Jew. The Jews are not allowed to wear any thing but black, a color hated by the Moors. They, therefore, adorn themselves so much the more in their houses. —The ruling class is the Turks. Since Turkish and other pirates settled here, 300 years ago, through the perfidy of the first Horuc or Aruch Barbarossa (see *Barbarossa*), the arts, sciences, agriculture and commerce, which formerly distinguished the Arabian states, here, as in Grenada, have perished. The political privileges of the Turks, and their riches, gained by piracy and traffic in slaves, have enabled them to tyrannise over the other inhabitants. The continual wars which the knights of Malta of the order of St. John carried on with the unbelievers, gave these military states of Northern Africa the occasion for their piratical policy. The knights destroyed the Moorish commerce. Selim and Soliman, therefore, called upon their subjects to commit robberies on the Christians. Excellent sailors were soon formed under the flag of the crescent. Among them, the two brothers Horuc and Hayradin (or Khair Eddin, who died in 1546), both surnamed *Barbarossa*, distinguished themselves. They founded, about 1518, the piratical republic of Algiers, where religious fanaticism has given to piracy a sacred character. As the Moorish commerce declined whilst that of the Christians increased, the Maltese, consequently, gained little, the Algerines, on the contrary, much booty, and Tunis, Tripoli and Morocco were induced to follow the example: but Algiers constantly distinguished itself above the rest of the Barbary states by courage and crime. Here, as in Malta, the sovereignty was the exclusive possession of foreign warriors. The reigning soldiery was supported by voluntary enlistments in all countries of the same belief, excepting that in which it governed. This militia reserved to itself the right of choosing their chief, and the dey was the first among his equals, for the soldiers a general, and for the native races an unlimited ruler. The Algerine government also prohibited the marriage of the soldiers, and jealously excluded their children from all participation in the government, the Turks reserving the important places for themselves. For this reason, the government sends ships every other year to the Levant, to obtain new enlistments. They take recruits even among the criminals

in Constantinople. Here despised, in Algiers they immediately become *effendis* (Turkish lawyers), with all the haughtiness of upstarts and adventurers. There are not more than 12—13000 of them, and yet they rule over several millions.

History of the Barbary States. Since the subjection of Northern Africa by Omar (A. D. 647) and other generals of the Arabian caliphs, several small states have arisen on the coast. Zeiri, a distinguished Arab, built Algiers (Aschir) in 944, and extended the dominion of his countrymen. One of the Fatimite caliphs conferred on the family of this able man (who died in 970) hereditary power. It governed, under the name of the *Zeirites*, till 1148, when Roger, king of Sicily, took from Hassan Ben Ali, the last of this dynasty, Tripoli and a great portion of his territory. The Moravides, the rulers of Morocco, made themselves masters of the rest. The dynasty of the Moravides governed the whole coast till 1269, in which year the Negro princes Abouhafs founded a kingdom at Tunis. St. Louis (q. v.) died of the plague, at the siege of the city of this name, in 1270. After this, the Beni Zian became masters of the greatest part of the Algerine state, but could not prevent the most important cities (Oran, Algiers, Tunis and Tripoli) from raising themselves to independent sovereignties, which, by the expulsion of the Moors and Jews from Spain, in and after 1492, became very populous. About 1494, they began to revenge themselves for their expulsion from Spain by piracy. Ferdinand the Catholic, therefore, fitted out a powerful expedition against them. He conquered, in 1506, Oran and other cities, made the rulers of Tunis and Tremecen tributary to him; in 1509, took Tripoli, subdued Algiers, and built, on an island before the harbor of the city, a castle, which he provided with a strong garrison, and thereby commanded the commerce of the place. But, after Ferdinand's death, the Algerines called to their assistance a Turkish pirate, the above-named Horuc or Aruch Barbarossa, who, with his brother, Khayr Eddin or Hayradin, appeared with a squadron before Algiers. He was received with joy by the inhabitants; but, soon after his arrival, he caused the emir Selim Eutemi (who till this time had defended Algiers) to be strangled, and himself to be proclaimed king, in 1518, by the Turks, who now exercised such intolerable tyranny, murdering and plundering at pleasure, that the natives were even compelled to call upon the Spaniards for as-

sistance; but a storm destroyed the Spanish fleet. Horuc Barbarossa afterwards defeated the Arabs, and conquered Tunis and Tremecen. But he was vanquished before Oran by the Spanish governor, the marquis de Gomarez, and, with 1500 Turks, remained dead upon the field. His brother and successor, Hayradin, seeing no possibility of being able to maintain himself against the Christians and the discontented Algerines, placed the kingdom, in 1519, under the protection of the sultan Soliman, who appointed him pacha, and supplied him with 10,000 janizaries. With these troops he expelled the Spaniards from the fortified island, which, in 1529, he connected with the main land by a mole, so as to render Algiers an excellent harbor. He took Tunis by stratagem, but was obliged, in 1535, to abandon it to Charles V, who again placed upon the throne the banished king, set at liberty 20,000 Christian slaves, and kept possession of the citadel of Goletta. Against Hassan (a renegade from Sardinia), Hayradin's successor in the office of pacha, Charles V, contrary to the advice of the experienced Doria, undertook the siege of Algiers, with a fleet of 200 sail and 30,000 men, in the latter part of 1541. The Spaniards wished to settle here permanently; and merchants, mechanics, and women, even ladies of the court, had embarked on board the fleet. But a terrible storm, accompanied with earthquakes and violent rains, destroyed the greater part of the ships and the camp, Oct. 28. Charles was obliged to abandon his cannon and baggage, and a great part of his scattered forces. He lost, by the storm, 15 ships of war, 140 transports and 8000 men. Cid-Utica, say the Moors, a pious Marabout, beat the sea so long with his stick, that it lost patience, and destroyed the ships of the unbelievers. A monument was erected to the holy man after his death; and, even now, the people believe that it is only necessary to strike the sea with his bones, in order to raise a storm which will repel a Christian fleet. This success encouraged the barbarians. The pacha of Egypt, in 1544, conquered Tremecen; in 1555, Bugia; and, in 1569, Tunis, which, however, regained its independence in 1628, in 1694 became tributary, and, in 1754, was conquered a second time. Since then, it has always remained more or less dependent upon Algiers. The Spaniards, in 1703, renewed, without success, their attacks upon Algiers: they also lost Oran, in 1708. Equally unsuccessful were the attacks of the English,

the Dutch and the French. In 1662, the English, for the first time, made a treaty with Algiers, and, in 1816, in connexion with the Dutch, finally humbled the pride of this piratical state. (See *Slave-trade* and *Slavery* of the Whites).—But the insufficiency of the means employed for the restraint of the fanatics, the jealousy of the European states, and other causes, contributed to render the humiliation of the Algerines only momentary. The northern coast of Africa can only be saved, after the complete extirpation of the Turkish soldiery, by a judicious colonial system. The haughtiness of the Barbary states is greater than ever. In 1817, the Algerine pirates ventured even into the North sea, and captured all the ships which did not belong to tributary powers, such as Sweden, Denmark, Portugal, or to those with which they have made treaties, as England, the United States, the Netherlands, Sardinia, Naples and France. The governments of Morocco, Algiers, Tunis and Tripoli have indeed promised not to treat the Christian prisoners any longer as slaves, but more like prisoners of war (see *Slave-trade*); but the lot of the unfortunate men who fall into their hands has not become better; on the contrary, their treatment is much more cruel than before. The flags of the less powerful states, notwithstanding the treaties, are seldom respected; and, in 1826, piratical fleets sailed from Algiers to capture vessels belonging to Spaniards and the subjects of the pope, &c. Against the German navigation, also, their fury has often been directed. On this account, an antipiratical confederacy has been formed in Hamburg, and, at the meeting of the diet, a committee was appointed to propose measures for the security of German ships. Most of the powers seemed to desire the protection of England, but Baden considered it a national concern of the German confederation. For two years past, the French and Algerines have been in a state of hostility: the dispute is not yet settled. Great Britain and France, in 1819, called upon the Barbary states, in the name of all the European powers, to regard as binding the European law of nations. But the crusade, which sir Sidney Smith, as president of the antipiratical association in Paris (now dissolved), proposed to the powers of Christendom, did not take place.—Of the three piratical states, Algiers, Tunis and Tripoli, Algiers is the seat of the most ferocious soldiery. The arbitrary extortions of the former pachas made their government so much

hated, that, in 1628, the inhabitants sent deputies to Constantinople, who persuaded Achmed I to consent to the limitation of the power of the pacha. They chose their own dey, therefore, to take charge of the finances, and left to the pacha only his salary and his rank. The pachas afterward attempting to recover their former authority, the dey Babu Ali, in 1710, caused the one then in office to be thrown into a ship, and sent to Constantinople, with the declaration, that the Algerines would no longer receive a pacha from the Porte, but would be governed by deys chosen by themselves. Achmed III appointed the then ruling dey his pacha, and thereby renounced all influence in the government of this military republic. Since that time, the grand seignior only sends occasionally a *chiaux*, or plenipotentiary, to Algiers, who is received with great respect, entertained, guarded, and very soon sent back again. But the personal condition of the deys is not more secure than that of their predecessors. Seldom is one so fortunate as Mohammed III, who died in 1791, after a reign of 23 years, at the age of 93. The dey Omar Pacha, who made so determined a resistance to lord Exmouth, and who was as prudent and active as he was brave, was murdered by his soldiers, in 1817. On this account, his successor, Ali Hodya, a Turk by birth, with his family, his treasures and ministers, went by night, Nov. 2, 1817, into the strong castle of Kiaska, or Charba (which was the residence of his predecessors till the middle of the 16th century), and, by means of the garrison, on which he could entirely rely, and his 50 cannon, held the city and the disorderly Turkish soldiery in awe. He treated the European consuls and the foreign merchants with shocking caprice and cruelty. His successor, Hussein, who seems more peacefully disposed, has also, for the sake of security, chosen this castle for his residence. The dey of Algiers has unlimited power, though assisted by a divan composed of the first ministers and officers of state. The choice of the dey depends wholly on the common soldiers. It must be unanimous; one party, therefore, generally compel the other to a concurrence with them. The individual chosen must take the office. The new dey, to reward his adherents with places, frequently causes all the officers of his predecessor to be put to death. The dey commands in every thing except in religious affairs. He holds a court of justice every day except Thursday and Fri-

day, at which all the officers are present. Every case is quickly decided, and the sentences are executed on the spot. The former dey armed the natives of the country, Moors and Negroes, against his own countrymen, the Turkish soldiery, and purchased their adherence by means of the sacred treasure in the old castle, of which he had made himself master.—The British government is more feared by these barbarians than any other. They observe the treaties entered into with England; and, since the treaty of 1721, the British consul has been held in great respect in Morocco. The condition of slaves, also, in Morocco and Tripoli, has constantly been tolerable, and their ransom easy; but, since the slavery of Christians has been abolished in Morocco, Europeans, who have fallen into the hands of Arabian and Turkish freebooters, by shipwreck or in other ways, are said to have been often murdered, if they could not be transported into the interior of Africa. Most of the Christian slaves are Italians; but the Italian states also treat the captive Moors as slaves.—The state of Algiers lies between Tunis and Fez; it contains 89,300 square miles, with 2,500,000 inhabitants. By the peace of 1816, Naples pays yearly to Algiers 24,000 dollars, and ransoms Neapolitan captives at the rate of 1000 dollars each. The ships of the U. States of America captured an Algerine frigate and brig of war in 1815, and the dey was obliged to make a treaty with the States, in which he renounced all tribute, and even gave 60,000 dollars as a compensation for the American ships which had been plundered. (See Lyman's *Diplomacy*. With regard to the relation of Algiers to England, see *Slave-trade*). 10,000 men, for the most part Turkish militia, form the army: on an emergency, 100,000 men can be brought together. The principal city, Algiers, with 80,000 inhabitants, including 10,000 Jews, lies on the sea coast, and is strongly fortified. In the provinces, the principal city is Constantina, bordering on Tunis. It is the most populous city, next to Algiers, and contains many ancient monuments. The provinces are under the despotic rule of beys: the villages have their own sheiks if a sheik has authority over several villages, he is called an *emir*. Respecting Tunis, Tripoli, the kingdom of Fez and Morocco, the provinces of Biledulgerid and Barca, see these articles.—The naval power of all the states of Northern Africa, taken together, has always been insignifi-

cant, in comparison with the European fleets. For further information, see Blaquiere's *Letters from the Mediterranean, containing a Civil and Political Account of Sicily, Tripoli, Tunis and Malta* (London, 1813); the *Narrative of a ten Years' Residence at Tripoli; An Account of the Domestic Manners of the Moors, Arabs and Turks* (London, 1816, 4to.; written by Richard Tully, British consul); Keating's *Travels in Europe and Africa, with a particular Account of Morocco* (London, 1816, 4to.); Macgill's *Account of Tunis* (Glasgow, 1811) and Shaler's *Sketches of Algiers* (Boston, 1826).

BARBAULD, Anna Letitia; daughter of the reverend John Aikin; born at Kibworth, in Leicestershire, June 20, 1743. She received from him a classical education, and early showed a disposition for poetry. Her earliest production was a small volume of miscellaneous poems, printed in 1772, which, in the year following, was succeeded by a collection of pieces in prose, published in conjunction with her brother, doctor John Aikin, of Stoke Newington. In 1774, she accepted the hand of the reverend Rochemont Barbauld. Her *Early Lessons and Hymns for Children*, and various essays and poems, have secured for her a permanent reputation. In 1785, she accompanied her husband on a tour to the continent. In 1812, appeared the last of her separate publications, entitled, *Eighteen Hundred and Eleven*, a poem of considerable merit; previous to which she had amused herself by selecting and editing a collection of English novels with critical and biographical notices. A similar selection followed from the best British essayists of the reign of Anne, and another from Richardson's manuscript correspondence, with a memoir and critical essay on his life and writings. Mrs. B. died at Stoke Newington, March 9, 1825, in her 82d year, leaving behind her many unpublished manuscripts, both in prose and verse.

BARBAZAN, Etienne; a French author and antiquary; born, 1696, at St. Fargeau. He edited several scarce books relating to the manners and customs of the feudal ages. Among these are, *L'Ordene de Chivalrie*, 1759; *Le Castoiment, ou Instructions d'un Pere a son Fils*; and *Tales and Fables of the Twelfth and Thirteenth Centuries*, in three vols., 1760; all in 12mo. Another edition of these works was printed at Paris, in four vols. 8vo., in 1808. These are interesting to the student who wishes to trace the progress of the modern languages. B. died in 1770.

BARBERRIES. Barberries are a beautiful red and oblong-shaped fruit, produced in small bunches by a shrub (*berberis vulgaris*), with somewhat oval, serrated and pointed leaves; thorns, three together, upon the branches, and hanging clusters of yellow flowers.—So great is the acidity of this beautiful fruit, that even birds refuse to eat it. In this respect, it nearly approaches the tamarind. When boiled with sugar, it makes an agreeable preserve, rob or jelly, according to the different modes of preparing it. Barberries are also used as a dry sweetmeat, and in sugar-plums or comfits; are pickled with vinegar, and are used for the garnishing of dishes. They are well calculated to allay heat and thirst in persons afflicted with fevers. The bark of the barberry shrub is said to have been administered with effect in cases of jaundice, and in some other complaints; and the inner bark, with the assistance of alum, dyes linen a fine yellow color. The roots, particularly their bark, are employed, in Poland, in the dyeing of leather. A very singular circumstance has been stated respecting the barberry shrub, that grain, sown near it, proves abortive, the ears being, in general, destitute of grain, and that this influence is sometimes extended to a distance of three or four hundred yards across a field. This opinion prevails not only in England, but also in France and the U. States.

BARBETTE; an elevation of earth behind the breastwork of a fortification or an intrenchment, from which the artillery may be fired over the parapet. The height of the breasting (the part of the parapet which covers the cannon) is generally 3½ feet; the length of the barbette, 14—16 feet; the breadth for every cannon, 16—18 feet. An ascent leads from the interior of the intrenchment to the barbette. When the garrison has much heavy ordnance, or the enemy has opened his trenches, or when it is determined to cannonade the intrenchments of a given point, as, for example, a bridge or pass, and the direction of the cannon is not to be materially changed, it is usual, instead of making a barbette, to cut embrasures in the parapet: on the contrary, firing from the barbette is expedient when one expects to be attacked only by infantry, or wishes to cannonade the whole surrounding country.

BARBEYRAC, John, was born at Beziers, in 1674, and went with his father to Lausanne, in 1686. He afterwards taught belles-lettres in the French college at

Berlin, but, in 1710, accepted the invitation to fill the new professorship of law and history founded at Berne, whence, in 1717, he removed to the chair of public and private law, at Groningen. B. has distinguished himself by many learned works, which show a high degree of erudition and a liberal spirit. His French translation of the Law of Nature and Nations, by Puffendorf, as also of the Rights of War and Peace, by Grotius, to both of which he added learned notes, are well known and much esteemed. He has likewise translated several works of the most distinguished civilians, including Cumberland's Latin treatise On Natural Law, his notes appended to which are highly valued. He died in 1747.

BARBIÉ-DU-BOCAGE, J. D.; geographer of the French department of foreign affairs, and, since 1806, member of the academy of inscriptions; born at Paris, 1760; died Dec. 28, 1825. He was a pupil of d'Anville. In 1785, he was appointed to assist in the care of the cabinet of medals, in the royal library. In 1793, when the arrest of all the officers of the libraries was decreed, he lost his small income. In 1797, he was appointed geographer to the ministry of the home department, and, in 1803, to that of foreign affairs; in 1809, professor, and, in 1815, dean of the academy of sciences at Paris. B. furnished the plans and maps to Choiseul-Gouffier's *Voyage pittoresque en Grèce*. In 1788, he furnished an atlas for Barthélemy's Travels of Anacharsis the Younger; second edition in 1799. In 1805, he published an essay and a map illustrative of the retreat of the 10,000 Greeks. He published, with de Sainte-Croix, in 1797, *Mémoires historiques et géographiques sur les Pays situés entre la Mer Noire et la Mer Caspienne*, in 4to. Among many other works, he has prepared an atlas in 54 sheets, 4to., for the illustration of ancient history, published in 1816.

BARBIER, Antoine Alexandre, bibliographer, was born at Coulommiers, in 1765, and, at the beginning of the revolution, was a vicar. In the year 1794, he went to Paris, where he was chosen a member of the committee appointed to collect works of literature and art existing in the monasteries, which were then suppressed. This was the cause of his being appointed, in 1798, keeper of the library of the conseil d'état, collected by himself, and, when it was transported to Fontainebleau, in 1807, Napoleon appointed him his librarian. At the return of the king,

he had the care of his private library. He died in 1825. His excellent *Catalogue de la Bibliothèque du Conseil d'état* (Paris, 1801—3, two vols. folio) is now very rare. His *Dictionnaire des Ouvrages anonymes et pseudonymes* (Paris, 1806—9, four vols., third edit. 1824), is, on account of its plan, its accuracy and its fulness (at least in respect to French literature), one of the best works which we have at present in this branch of bibliography. He did not succeed so well with his *Examen critique et Complément des Dictionnaires historiques* (one vol., Paris, 1820) since the narrow circle of his studies and researches was not sufficient for such an extensive plan.

BARBIERI (Gianfrancesco Barbieri da Cento). (See *Guercino*.)

BARBOU; a celebrated family of printers, known since the 16th century. The works of their press are distinguished for correctness and neatness. In the beginning of the 18th century, this family settled in Paris. Here Joseph Gerard Barbou continued the collection of Latin classics in 12mo., which Coustelier had begun. Coustelier had published Catullus, Tibullus, Propertius, Lucretius, Sallust, Virgil, Nepos, Lucan, Phædrus, Horace, Velleius, Eutropius, Juvenal and Persius, Martial and Terence. Barbou, from whom the whole collection generally takes its name, published Cæsar, Curtius, Plautus, Tacitus, Seneca, Ovid, Cicero, Justin, both the Plinies and Livy, and also some of the later Latin authors in the same form. The present owner of the whole publication, Auguste Delalain, has added to the collection four volumes, and sells the whole set of 77 volumes, in pasteboard, at 350 francs; bound, at 500 francs.

BARBOUR, John; an ancient Scottish poet, of whose personal history but few particulars are recorded. He appears to have been born about 1316, and educated for the church, being styled, in the year 1357, *archdeacon of Aberdeen*. In that year, he was appointed, by the bishop of his diocese, a commissioner to treat for the ransom of the captive king David II. About 1375, he was engaged in composing his celebrated poem of The Bruce, or the History of Robert I, King of Scotland, which was first published in 1616, and of which the most valuable of many editions is that of 1790, three vols. 12mo., edited by Pinkerton, from a MS. in the advocates' library, dated 1489. It is a work of considerable merit; and it is remarkable that B., who was contemporary with Gower

and Chaucer, is more intelligible to modern readers than either of them. He died, at an advanced age, in 1396.

BARBUDA, or **BARBOUTHOS**; one of the Caribbee islands, about 21 miles long, and 12 wide; lon. $61^{\circ} 50' W.$; lat. $17^{\circ} 44' N.$; population, 1500. The land lies low, but it is fertile, and the inhabitants are chiefly employed in breeding cattle, sheep, kids, fowls, &c., which they dispose of in the neighboring islands; they likewise cultivate citrons, pomegranates, oranges, raisins, Indian figs, maize, cocoa-nuts, pine-apples, pepper, indigo, &c. The island has no harbor, but a well sheltered road on the west side. This island is the property of the Codrington family, who have done what few slaveholders can boast of—they have caused their slaves to be instructed in Christianity.

BARCA; a desert, containing only a few fertile spots, on the northern coast of Africa, between Tripoli and Egypt (88,000 square miles, with 300,000 inhabitants). Its soil is limestone, covered with quicksand. The mountain Harutsch, towards the west and the south, is probably of volcanic origin. This country is a Turkish province, under a sandgiak, in the town of Barca. Here is also Tolometa (Ptolemais), with Greek ruins. The remains of Cyrene (q. v.) are now called *Cunen*. The mountains of Derne, with the town of the same name, are under a bey, appointed by the bey of Tripoli. The bey of Bingazi (ancient *Berenice*), with the ports on the gulf of Sydra, and the small commercial republic Augila, in the interior, are also under the bey of Tripoli. In the desert, four days' journey westward from the Nile, are some inhabited oases. Such is the watered part of the republic Siwah, which acknowledges the protection of the Porte, and pays tribute to the pacha of Egypt. The capital, Siwah (the ancient *Ammonium*, see *Ammon*), has 6000 inhabitants, and a trade in dates. Frediani speaks of having found, in March, 1820, in the oasis of Jupiter Ammon, the ruins of the ancient temple. The German architect Gau, and the French consul Drovetti, in Egypt, have contradicted his account. The inhabitants are mostly of Arabian descent, Mohammedans, and partly robbers.

BARCAROLLA; a kind of song of the gondoliers at Venice, often composed by themselves, but of a very agreeable character. The most of these gondoliers know by heart a great deal of Tasso's *Jerusalem Delivered*, some of them even the whole, somewhat corrupted, it is true.

They sing stanzas of it, during the summer nights, from one gondola to another. Tasso is probably the only epic poet, besides Homer, whose writings have been so generally preserved in the memories of his countrymen. The custom above described, however, is going out of use.

BARCELONA, one of the largest cities of Spain, the capital of the province of Catalonia, is handsomely built, in the shape of a half-moon, on the coast of the Mediterranean, in lon. $2^{\circ} 10' E.$, and $41^{\circ} 21' 44'' N.$ lat. It was, even in the middle ages, one of the principal commercial places on this sea; is well fortified, and has, on the east side, a strong citadel, built in 1715, having a secret connexion with the fort San Carlos, near the sea. On the west side of the city lies the hill of Montjouy, with a fort, which protects the harbor. B. is divided into the upper and lower town, and contains, including the adjoining Barcelonetta, 140,000 inhabitants. It has 150 cotton and many silk manufactories. Linen and laces, articles of iron and copper, particularly excellent guns, pistols and swords for the Spanish army, formerly sent, also, to Naples and the American colonies, are manufactured in great quantities. The harbor is spacious, but of difficult access, and has not sufficient depth for men-of-war. It is protected by a large mole, at the end of which are a lighthouse and a bulwark. The exports consist, besides the above-mentioned articles, of wine and brandy; the imports, of French and Italian manufactures, grain, rice, timber from the Baltic, yellow wax from Barbary, Swedish iron, steel from Stiria, hemp from Riga and Petersburg, linen, copper and iron wire from Germany. An important article of import is stockfish, brought by the English from Newfoundland. The amount of the imports and exports, which employ nearly 1500 ships (among them 120 belonging to B.), is computed to be more than 7,000,000 dollars. The city contains 82 churches, a university, several public libraries, a public collection of natural curiosities, a school for engineers and artillery, an academy of belles-lettres, a founding hospital, a general hospital, large enough to contain 3000 sick persons, a large arsenal, a cannon foundry, &c. The tribunal of the inquisition is suppressed.—B. was, until the 12th century, governed by its own counts; but, afterwards, by the marriage of Raymond V with the daughter of Ramiro II, king of Arragon, it was united with that kingdom. In 1640, it withdrew, with all Cat-

alonia, from the Spanish government, and submitted to the French crown; in 1652, submitted again to the Spanish government; in 1697, it was taken by the French, but restored to Spain at the peace of Ryswick. In the war of the Spanish succession, B. took the part of the archduke Charles; but, in 1714, it was besieged by the troops of Philip V, under the command of the duke of Berwick, and taken after an obstinate resistance. The strong citadel on the east side of the city was then erected, to overawe the inhabitants. Feb. 16, 1809, B. was taken, by surprise, by the French troops under general Duhesme, and remained in the power of the French, until, in 1814, all their troops were recalled from Catalonia to defend their own country. In 1821, B. was desolated by the yellow fever.

BARCLAY, Alexander; an English poet of the 16th century. Very little is known concerning him, except what we learn from his writings, which inform us, that he was a priest and chaplain of St. Mary Ottery, in Devonshire, and afterwards a Benedictine monk of Ely. He survived the reformation, and obtained preferment in the church. His death took place in 1552, a short time after he had been presented to the living of All-Hallows, in London. The principal work of this poet is a satire, entitled *The Ship of Fools*, a translation or imitation of a German composition. (See *Brandt, Sebastian*.) B. also wrote Eclogues, which, according to Warton, the historian of English poetry, are the earliest compositions of the kind in our language. They are curious and interesting for the descriptions they afford of the character and manners of the age in which they were written.

BARCLAY, John, was born at Pont-à-Mousson, and educated in the Jesuits' college at that place. He accompanied his father to England, where he was much noticed by James I, to whom he dedicated one of his principal works, a politico-satirical romance, entitled *Euphormio*, in Latin, chiefly intended to expose the Jesuits, against whom the author adduces some very serious accusations. He wrote, also, several other works, among which is a singular romance, in elegant Latin, entitled *Argenis*, which first appeared at Paris, in 1621. It is a political allegory, of a character similar to that of *Euphormio*, and alludes to the political state of Europe, and especially France, during the league. Like the *Euphormio*, it has been several times reprinted, and has also been translated into sev-

eral of the modern languages, including English. (See *Reeve, Clara*.) A singular story of romantic chivalry has been quoted from the *Euphormio* by sir Walter Scott, in the notes to his *Marmion*.

BARCLAY, Robert, the celebrated apologist of the Quakers, was born, in the year 1648, at Gordonstown, in the shire of Moray, of an ancient and honorable family. The troubles of the country induced his father, colonel B., to send him to Paris, to be educated under the care of his uncle, who was principal of the Scots' college in that capital. Under this influence, he was easily induced to become a convert to the Roman Catholic religion, upon which his father sent for him to return home; and, colonel B. soon after becoming a Quaker, his son followed his example. Uniting all the advantages of a learned education to great natural abilities, he soon distinguished himself by his talents and zeal in the support of his new opinions. His first treatise in support of his adopted principles, was published, at Aberdeen, in the year 1670, under the title of *Truth cleared of Calumnies, &c.*, being an answer to an attack on the Quakers by a Scotch minister of the name of *Mitchell*. It is written with great vigor, and, with his subsequent writings against the same opponent, tended materially to rectify public sentiment in regard to the Quakers, as also to procure them greater indulgence from government. To propagate the doctrines, as well as to maintain the credit he had gained for his sect, he published, in 1675, a regular treatise, in order to explain and defend the system of the Quakers, which production was also very favorably received. These and similar labors involved him in controversies with the leading members of the university of Aberdeen, and others; but, notwithstanding so much engrossment, his mind was, at the same time, busy with his great work, in Latin, *An Apology for the true Christian Divinity, as the Same is preached and held forth by the People in scorn called Quakers*. It was soon reprinted at Amsterdam, and quickly translated into the German, Dutch, French and Spanish languages, and, by the author himself, into English. It met, of course, with many answers; but, although several of them were from able and learned pens, they attracted, comparatively, very little notice. His fame was now widely diffused; and, in his travels with the famous William Penn through the greater part of England, Holland and Germany, to spread the opinions of the

Quakers, he was received every where with the highest marks of respect. The strength of his understanding rendered this extraordinary man equally adequate to what is considered most important in the business of the world, as appears from an excellent letter addressed by him, on public affairs, to the assembled ministers of the various powers of Europe at Niméguen. The last of his productions, in defence of the theory of the Quakers, was a long Latin letter, addressed, in 1676, to Adrian de Paets, On the Possibility of an Inward and Immediate Revelation. It was not published in England until 1686; from which time B., who had endured his share of persecution, and been more than once imprisoned, spent the remaining part of his life, in the bosom of a large family, in quiet and peace. He died, after a short illness, at his own house, in Uri, 1690, in the 42d year of his age. With few exceptions, both partisans and opponents unite in the profession of great respect for the character and talents of B. Besides the works already mentioned or alluded to, he wrote a treatise On Universal Love, and various replies to the most able opponents of his Apology. He left seven children, all of whom were living fifty years after the death of their father.

BARD. This name, of uncertain etymology, is applied to the poets of the Celtic tribes, who, in battle, raised the war-cry, and, in peace, sang the exploits of their heroes, celebrated the attributes of their gods, and chronicled the history of their nation. Originally spread over the greater part of western Europe, they seem to have been the heralds, the priests and the lawgivers of the free barbarians, who first occupied its ancient forests, until, by the gradual progress of southern civilization and despotism, they were driven back into the fastnesses of Wales, Ireland and Scotland, where the last echoes of their harps have long since died away. Their early history is uncertain. Diodorus (lib. v. 31.) tells us, that the Celts had bards, who sang to musical instruments; and Strabo (lib. iv.) testifies that they were treated with respect approaching to veneration. The passage of Tacitus (Germ. 7.) is a doubtful reading. Heyne does not venture to decide whether it is *barditus*, as some, who explain it to mean *bard's song*, maintain, or *baritus*, which, according to Adelung, is the true reading, and signifies merely *war-cry*. The first Welsh bards, of whom any thing is extant, are Taliesin,

Aneurin and Llywarch, of the 6th century; but their language is imperfectly understood. From the days of these monarchs of the bards, we have nothing further till the middle of the 10th century, when the reputation of the order was increased under the auspices of Howel Dhu. A code of laws was framed, by that prince, to regulate their duties and fix their privileges. They were distributed into three classes, with a fixed allowance; degrees of rank were established, and prize-contests instituted. Their order was frequently honored by the admission of princes, among whom was Llewellyn, last king of Wales. The Welsh, kept in awe as they were by the Romans, harassed by the Saxons, and eternally jealous of the attacks, the encroachments and the neighborhood of aliens, were, on this account, attached to their Celtic manners. This situation and these circumstances inspired them with a proud and obstinate determination to maintain a national distinction, and preserve their ancient usages, among which the bardic profession is so eminent. Sensible of the influence of their traditional poetry in keeping alive the ideas of military valor and of ancient glory among the people, Edward I. is said to have collected all the Welsh bards, and caused them to be hanged, by martial law, as stirrers up of sedition. On this incident is founded Gray's well-known ode "The Bard." We, however, find them existing at a much later period, but confining themselves to the humble task of compiling private genealogies. But little is known of the music and measures of the bards: their prosody depended much on alliteration: their instruments were the harp, the pipe and the crwth. Some attempts have lately been made, in Wales, for the revival of bardism, and the Cambrian society was formed, in 1818, for the preservation of the remains of this ancient literature, and for the encouragement of the national muse. The bardic institution of the Irish bears a strong affinity to that of the Welsh. The genealogical sonnets of the Irish bards are still the chief foundations of the ancient history of Ireland. Their songs are strongly marked with the traces of Scaldic imagination, which still appears among the "tale-tellers," a sort of poetical historians, supposed to be the descendants of the bards. There was, also, evidently a connexion of the Welsh with Armorica. Hence, in the early French romances, we often find the scene laid in Wales; and,

on the other hand, many fictions have passed from the Troubadours into the tales of the Welsh.—In the Highlands of Scotland, there are considerable remains of many of the compositions of their old bards still preserved. The most wonderful of these are the poems of Ossian, collected and translated by Macpherson. Their genuineness has been doubted; but the report of a committee of the Highland society, published in 1805, of which Mackenzie was editor, proves, as they contend, that a part of them is authentic, and that the greater portion of the remainder was really obtained from traditional sources. "These poems," says Warton (*History of English Poetry*, diss. 1.), "notwithstanding the difference between the Gothic and the Celtic rituals, contain many visible vestiges of Scandinavian superstition. The allusions, in the songs of Ossian, to spirits who preside over the different parts, and direct the various operations of nature; who send storms over the deep, and rejoice in the shrieks of the shipwrecked mariner; who call down lightning to blast the forest or cleave the rock, and diffuse irresistible pestilence among the people, beautifully conducted and heightened under the skilful hand of a master bard, entirely correspond with the Runic system, and breathe the spirit of its poetry."

BARDESANES the Gnostic, a Syrian who lived, in the latter half of the second century, in Edessa, and was a favorite of the king Abgar Bar Maanu, is memorable for the peculiarity of his doctrines. He considered the evil in the world only as an accidental reaction of matter, and all life as the offspring of male and female Æons. From God, the inscrutable Principle of all substances, and from the consort of this first Principle, proceeded Christ, the Son of the Living, and a female Holy Ghost; from these, the spirits or creative powers of the four elements; thus forming the holy eight, or the godlike fulness, whose visible copies he found in the sun, the moon and the stars, and therefore attributed to these all the changes of nature, and of human destiny. The female Holy Ghost, impregnated by the Son of the Living, was, according to him, the Creator of the world. The human soul, originally of the nature of the Æons, was confined in the material body only as a punishment of its fall, but not subjected to the dominion of the stars. He considered Jesus, the Æon destined for the salvation of souls, only a feigned man, and his death only a feigned death,

but his doctrine the sure means to fill the souls of men with ardent desires for their celestial home, and to lead them back to God, to whom they go immediately after death, and without a resurrection of the earthly body. B. propagated this doctrine in Syrian hymns, and is the first writer of hymns in this language. His son Harmonius studied in Athens, and strove, also, by means of hymns, to procure the reception of his doctrine. Yet the Bardesanists did not formally separate themselves from the orthodox Christian church. They maintained themselves until the 5th century. Valentinus the Gnostic approached the nearest to B., without being his follower. A fragment of the work of B. upon destiny is preserved in the Greek language, by Eusebius (*Præpar. Evangel.* lib. 6, cap. 10). He led an irreproachable life. Fragments of his Syrian hymns, which display a rich and ardent fancy, are to be found in those hymns which the Syrian patriarch Ephraim composed against his doctrine.

BAREFOOTED FRIARS; monks who do not use shoes, but merely sandals, or go entirely barefoot. In several orders of mendicant friars, e. g., among the Carmelites, Franciscans, Augustins, there are congregations of barefooted monks and barefooted nuns, but nowhere a separate order of this kind.

BARETTI, Joseph, an Italian writer, was the son of an architect of Turin, where he was born in the year 1716. He received a good education and some paternal property, which, according to his own confession, he soon gamed away. In 1748, he repaired to England. In 1753, he published, in English, a Defence of the Poetry of Italy against the Censures of M. Voltaire. About this time, he was introduced to doctor Johnson, then engaged in the compilation of his Dictionary, of which B. availed himself to compile an Italian and English Dictionary, in 1760, much more complete than any which had before appeared. In this year, he revisited his native country, and published, at Venice, a journal under the title of *Frusta Letteraria*, which met with great success, but, owing to the severity of its criticisms, subjected the author to unpleasant if not dangerous consequences. After an absence of six years, he therefore returned, through Spain and Portugal, to England, and, in 1768, published an Account of the Manners and Customs of Italy. Doctor Johnson, whose friendship to him was always warm and cordial, soon after

introduced him to the Thrale family. Not long after his return from Italy, an incident occurred to him of the most distressing nature. Accosted in the Hay-market by a woman of the town, he repulsed her with a degree of roughness which produced an attack from some of her male confederates, and, in the scuffle, he struck one of the assailants with a French pocket dessert-knife. On this, the man pursued and collared him; when B., still more alarmed, stabbed him repeatedly with the knife, and he died of the wounds on the following day. He was immediately taken into custody, and was tried for murder at the Old Bailey, but acquitted. On this occasion, Johnson, Burke, Goldsmith, Garrick, Reynolds and Beauclerk gave testimony to his good character; and, although he did not escape censure for his too ready resort to a knife, his acquittal was generally approved. In 1770, he published his *Journey from London to Genoa, through England, Portugal, Spain and France*—a work replete with information and entertainment. He also continued to publish introductory works, for the use of students in the Italian and other modern languages, and superintended a complete edition of the works of Machiavel. The latter part of his life was harassed with pecuniary difficulties, which were very little alleviated by his honorary post of foreign secretary to the royal academy, and an ill-paid pension of £80 per annum under the North administration. In 1786, he published a work with the singular title of "Tolendron: Speeches to John Bowles about his Edition of Don Quixote, together with some Account of Spanish Literature." He died in May, 1789. B., although rough and cynical in his appearance, was a pleasant companion; and of his powers in conversation doctor Johnson thought highly. He was deemed a latitudinarian in respect to religion; but his integrity was unimpeached, his morals pure, and his manners correct. He had, also, a high sense of the value of independence, and often refused pecuniary assistance when he most needed it.

BAREZZI, Stefano, painter in Milan, has made himself known by the mode which he invented of taking old fresco paintings from walls, by fixing upon them a piece of linen, covered with a certain cement, which loosens the colors; they are then transferred upon a board prepared for the purpose, upon which, after removing the linen, they remain perfectly firm. In the hall of exhibition of the palace Brera is to

be seen a painting of Aurelio Luino, representing the torture of St. Vincent, which he has safely transferred to a board in this manner.

BARFLEUR; a sea-port of France, in the department of the Channel; 12 miles east of Cherbourg. Lon. 1° 15' W.; lat. 49° 40' N. Pop. 900. It was, at one time, the best port on the coast of Normandy; but, in the year 1346, it was taken and pillaged by Edward III, king of England, and the harbor destroyed. William the Conqueror fitted out at B. the expedition which effected the conquest of England.

BARGAIN AND SALE, INSTRUMENT OF, is an indenture whereby lands and tenements are granted. By the stat. 27 Hen. VIII, c. 16, it was enacted that an estate of freehold should not pass by bargain and sale, unless by indenture enrolled in one of the courts of Westminster, or in the county where the lands lie. This statute would have introduced the general practice of enrolment of deeds in England, had it extended to leasehold estates. To remedy this defect in some measure, the statute of 29 Charles II, c. 3, was enacted; which provides against conveying lands or hereditaments for more than three years, or declaring trusts otherwise than in writing. The conveyance by bargain and sale, in England, is very similar to the conveyances by deed, most generally in use in the U. States.

BARILLA; the term applied, in commerce, to a product obtained from the combustion of certain marine vegetables. This word is the Spanish name of a plant (*salsola soda*), from the ashes of which is produced the above substance, which affords the alkali (soda). This is also procured from the ashes of prickly saltwort, shrubby saltwort (*salsola fruticosa*) and numerous plants of other tribes. The plants made use of for burning differ in different countries; and the residue of their incineration contains the soda in various states of purity. The barilla derived from the *abesembryanthemum nodiflorum* of Spain, and the *M. copticum* of Africa, contains from 25 to 40 per cent. of carbonate of soda; whereas that from the *salsola* and the *salicornia* of other districts affords about half this quantity; and the particular variety known under the name of *kelp*, procured by burning various sea-weeds, is a still coarser article, not yielding above 2 or 3 per cent. of real soda. To obtain the carbonate of soda, it is only requisite to lixiviate the

barilla in boiling water, and evaporate the solution.—On the shores of the Mediterranean, where the preparation of soda is pursued to a considerable extent, the seeds of the plants from which it is obtained are regularly sown in places near the sea. These, when at a sufficient state of maturity, are pulled up by the roots, dried, and afterwards tied in bundles to be burnt. This, in some places, is done in ovens constructed for the purpose, and, in others, in trenches dug near the sea. The ashes, whilst they are hot, are continually stirred with long poles, and the saline matter they contain forms, when cold, a solid mass, almost as hard as stone. This is afterwards broken into pieces of convenient size for exportation. The best sort of Spanish soda is in dark-colored masses of a bluish tinge, very heavy, sonorous, dry to the touch, and externally abounding in small cavities. Its taste is very sharp, corrosive, and strongly saline. The important uses of soda in the arts, and especially the constant consumption of it in the manufacture of all kinds of fine and hard soaps, are well known. The greater part of the barillas or crude sodas of commerce are now obtained from the ashes of various sea-weeds, which manufacture is extensively prosecuted upon the western shores of Scotland. (For an account of this, see *Kelp*.)

BARING, Alexander, a banker in London, and member of parliament, one of the directors of the East India company and the bank of England, is the second son of the late merchant and baronet, sir Francis Baring. He belongs to the whig party, like his father and the whole family, but he is opposed to the radical reformers. His house is known to the merchants of the whole civilized world, and attracted much notice from the public in general, when he placed himself at the head of the great French loan, and appeared, on this occasion, at the congress of Aix-la-Chapelle, in 1818. The conditions of this loan were, as we know from the French papers, extremely advantageous, and made his house one of the first in Europe. B., like Necker, can use his pen well, and obtained a respectable place among writers on political economy by his Inquiry into the Causes and Consequences of the Orders in Council (London, 1808). He and his brother Henry married two sisters, the heiresses of an American gentleman named Bingham, each of whom received a dowry of £100,000. His late father, sir Francis, was descended from an old family in

Devonshire, and was often consulted by Pitt in relation to commercial affairs.

BARITON; a male voice, the compass of which partakes of those of the common bass and the tenor, but does not extend so far downwards as the one, nor to an equal height with the other.

BARJAPPOOR. (See *Bejjapoor*.)

BARK, PERUVIAN, is the produce of a tree, the various species of *cinchona*, which is the spontaneous growth of many parts of South America, but more particularly of Peru. The tree is said somewhat to resemble a cherry-tree in appearance, and bears clusters of red flowers.—This valuable medicine was formerly called *Jesuit's bark*, from its having been introduced into Europe by the members of that religious order, who were settled in South America. They were instructed in the use of it by the natives of Peru, to whom it had been long known; and it continued, for many years, a source of profit to the order. Its botanical name was derived from that of the countess del Cinchon, the lady of a Spanish viceroy, who had been cured by it. The tree from which it is obtained grows abundantly in the forests of Quito and Peru, and the bark is cut by the natives in the months of September, October and November, during which, alone, the weather is free from rain. The bark is of three kinds—the red, the yellow and the pale. The first has now become scarce, but has also lost the exclusive reputation which it once had, the yellow and pale barks having been found to be stronger in their febrifuge properties. The *crown-bark*, as the highest-priced is termed, is of a pale, yellowish-red.—The uses of the bark, in medicine, are too well known to need description; but the chemical discoveries in relation to it are deserving of more particular mention. Its medicinal properties were found, a few years since, to depend upon the presence of a substance called *quinine*. This exists, more or less, in all kinds of Peruvian bark, but in quantities very unequal in the various kinds. It was discovered by Messrs. Pelletier and Caventou, who also ascertained that the most useful and permanent form of the substance was that of a neutral salt, in which it was combined with sulphuric acid, constituting the celebrated sulphate of quinine. This extract is so powerful, that one grain of it is a dose; and thus does this little powder, which is almost imperceptible, supply the place of the nauseous mouthfuls of bark, which were absolutely eaten by the unfortunate

beings who were afflicted with ague, before this invaluable article was discovered. Next to the bleaching liquor and the gas-lights, this may be regarded as the most interesting and valuable of the gifts of chemistry to her sister arts. So extensive has the manufacture of this most important article become, that, in 1826, no less than 1593 cwt. of bark were used by four chemists concerned in the production of it in Paris; and 90,000 ounces of sulphate of quinine were produced in France during the same year, being enough for the curing, at a fair calculation, of near 2,000,000 of sick, who have, by this most happy discovery, been spared the swallowing of at least 10,000,000 ounces of crude bark. This one fact should entitle the name of Pelletier to the gratitude of all posterity.

BARKER, Edmund Henry, one of the most famous living English philologists, born Dec. 22, 1788, at Hollym, in Yorkshire, where his father was a preacher, received his first education at some private institutions in London, and Louth, in Lincolnshire. At the university of Cambridge, where he was a member of Trinity college, he lived, according to the rule of Horace, day and night with the Greeks. In 1809, he wrote a Latin and Greek epigram, which obtained him Browne's gold medal. He also published editions of Cicero *De Senectute*, and *De Amicitia*, which were twice reprinted, and of Tacitus's *Germania* and *Agricola*, which have been also printed again. He has written, also, a work called *Classical Recreations*, one vol.; several pieces in the *Classical Journal*, since the third number; an article in the second number of the *Retrospective Review*, and some reviews in the *British Critic*. His participation in the new edition of *Henr. Stephani Thesaurus, Gr. L.* made him generally known. This work was intrusted to him by Valpy, and procured him the acquaintance of the well-known English philologist Parr. The objections which learned men have made against the too great extension of the plan and the arrangement of the materials, are well founded; but Barker has been the subject, also, of envious attacks. He was obliged to defend himself in a pamphlet, in order to secure the undisturbed progress of his own and Valpy's undertaking. Some German philologists of the first order, as Hermann and Wolf, have spoken of him in high terms. His edition of Arcadius *De Accentibus*, with an *Epistola Critica* on Boissonade, is a work of merit. On many occasions, B.

has afforded assistance to the works of learned Germans, by valuable communications of materials and observations. Since 1814, he has lived at Thetford, in Norfolk, devoting himself entirely to philology. In 1828, he published memoirs of his friend doctor Parr, under the title of *Parriani*.

BARLEY (in Latin, *hordeum*); a grain which has been known, like most other kinds of grain, from time immemorial. It has a thick spike; the calyx, husk, awn and flower are like those of wheat or rye, but the awns are rough; the seed is swelling in the middle, and, for the most part, ends in a sharp point, to which the husks are closely united. The species are, 1. common long-eared barley; 2. winter or square barley, by some called *big*; 3. sprat barley, or battle-door barley. All these sorts of barley are sown in the spring of the year, in a dry time. The square barley, or *big*, is chiefly cultivated in the north of England and in Scotland, and is harder than the other sorts. Barley is emollient, moistening, and productive of expectation: this grain was chosen by Hippocrates as a proper food in inflammatory distempers. The principal use of barley, in England and America, is for making beer; in some parts of the European continent, horses are fed with it, and in other parts, poor people make bread of it. In Scotland, barley is a common ingredient for broths. Pearl barley and French barley are barley freed from the husk by means of a mill; the distinction between the two being, that pearl barley is reduced to the size of small shot, all but the heart of the grain being ground away.

BARLOW, Joel, a poet and diplomatist, was the youngest of 10 children of a respectable farmer in moderate circumstances. He was born at Reading, a village in Connecticut, about 1755. His father died while he was yet a lad at school, leaving him little more than sufficient to defray, economically, the expenses of a liberal education. In 1774, he was placed at Dartmouth college, New Hampshire, then in its infancy, and, after a very short residence there, entered Yale college, New Haven, where he displayed a talent for versification, which gained him reputation among his fellow-students, and introduced him to the particular notice and friendship of doctor Dwight, then a tutor in that college. These circumstances contributed to excite his poetical ambition still more strongly, and thus fixed the character of his future life. The

militia of Connecticut, in the beginning of the war of the revolution, formed a considerable part of general Washington's army; and young Barlow, more than once, during the vacations of the college, served as a volunteer in the camp, where four of his brothers were on duty, and is said to have been present at the battle of White plains. Having passed through the usual course of study with reputation, he received, in 1778, the degree of bachelor of arts, on which occasion he appeared, for the first time, before the public in his poetical character, by reciting an original poem. It was printed at Litchfield, with some other of his minor pieces, in a collection entitled *American Poems*. Upon leaving college, he applied himself assiduously to the study of the law. But he continued this pursuit only a few months. The Massachusetts line of the American army was, at this time, deficient in chaplains, and Barlow was strongly urged, by some influential friends, to qualify himself for that station. It was, at the same time, intimated to him, that every indulgence should be shown him in his theological examination. Under this assurance, being well grounded in general literature, and having passed his whole life among a people, with whom almost every man has some knowledge of speculative divinity and religious controversy, he applied himself strenuously to theological studies, and, at the end of six weeks, was licensed to preach as a Congregational minister, and repaired immediately to the army. Here he is said to have been regular in the discharge of his clerical duties, and much respected as a preacher. In the camp, he preserved his fondness for the muses. The spirit of the American soldiery is supposed to have been not a little supported, through their many hardships, by numerous patriotic songs and occasional addresses, written by Mr. Barlow, doctor Dwight and colonel Humphreys. B. remained in the army until the close of the war, and, during the whole of this period, was engaged in planning, and, in part, composing the poem which he first published under the title of the *Vision of Columbus*, and afterwards expanded into his great work, the *Columbiad*. When the independence of the U. States was acknowledged, and the American forces disbanded, in 1783, Barlow was again thrown upon the world. He had never manifested much fondness for the clerical profession, and the habits of a military life contributed to unfit him still more for the regular labors and the humble duties

of a parish minister. In New England, if the clerical character has been worn without disgrace, it may easily be thrown off without dishonor. Mr. Barlow, therefore, without hesitation, reverted to his original plan of pursuing the profession of the law. With this view, he removed to Hartford, where he settled himself, as he imagined, for the rest of his life. Here, as a means of temporary support, he established a weekly newspaper. He was also, at this time, engaged in preparing for the press his *Vision of Columbus*. The extensive acquaintance which he had formed in the army, and the zeal of his personal friends, enabled him to obtain a very large subscription for this work, which was published in 1787. Its success was very flattering. Within a few months after its publication in America, it was reprinted in London, and has since gone through a second edition in America, and one in Paris. The first edition was inscribed, in an elegant and courtly dedication, to Louis XVI. Having been employed by the clergy of Connecticut to adapt Watts's version of the Psalms to the state of the New England churches, Barlow gave up his weekly paper, and became a bookseller at Hartford. This he did chiefly with a view of aiding the sale of his poem, and of the new edition of the Psalms; and, as soon as these objects were effected, he quitted the business, and engaged in the practice of the law. During his residence at Hartford, he was concerned in several occasional publications, which issued from a club of wits and young politicians in that city and its vicinity. His various publications continued to increase and extend his reputation; but, in the meanwhile, his success at the bar was by no means flattering. He was unfortunate in an embarrassed elocution; his habits of life were grave and retired, and his manners and address were not of that familiar and conciliating cast which so often supplies the want of professional merit. Under these circumstances, he accepted an offer to engage in another employment. Some members of a land company, called the *Ohio company*, in connexion with a few other persons, then supposed to be men of property, by a manœuvre not then understood, but which has since been detected, appropriated to their own use a very considerable part of the funds of that company, and, under the title of the *Scioto company*, offered vast tracts of land for sale in Europe, to few of which they had any legal claim. As the agent of this company, but with perfect ignorance of their

real plan, Barlow embarked for England, in 1788, and, soon after, crossed the channel to France, where he disposed of some of these lands under the title of the *Scioto company*. While in France, he took a warm interest in the revolution then in progress, and became intimately acquainted with many leaders of the republican party, particularly with that section afterwards denominated the *Girondists*, or *moderates*, entered into all their plans, and was soon conspicuous as one of their most zealous partisans. He returned to England, in 1791, with the intention of embarking for America, after having resided for a year or two longer in London. About the end of the year 1791, he published, in London, the first part of his *Advice to the Privileged Orders*. This he afterwards completed by the addition of a second part; and the whole has been several times reprinted in the U. States. This publication was followed, in February, 1792, by the *Conspiracy of Kings*, a poem of about 400 lines. The subject was the first coalition of the continental sovereigns against France. It has little of poetical ornament, and the poet often descends into the common-place topics of the day, but many of his lines are vigorous. In the autumn of the same year, he published a Letter to the National Convention, in which he urges them to abolish the royal power, render elections more frequent and popular, and dissolve the connexion between the government and the national church. All these publications procured him some profit and much notoriety. Though France was the theme, they were doubtless intended to have their chief effect on England. Barlow consequently became acquainted with all the English politicians who were, like him, engaged in the cause of reform or revolution, and with most of the republican men of letters and science, who, about that period, were so numerous in London as almost to form a distinct class. Towards the end of 1792, the London constitutional society, of which he was a member, voted an address to the French convention, and Mr. Barlow and another member were deputed to present it. They immediately undertook and executed their commission. Barlow was received in France with great respect, and the convention soon after conferred upon him the rights of a French citizen. As the revolutionary symptoms in England had attracted the attention of government, and an official inquiry had been set on foot respecting Barlow's mission, he deemed

it unsafe to return to England, and fixed his residence, for a time, in France. In the latter part of this year, he accompanied his friend Gregoire, and a deputation of the national convention, who were sent to organize the newly-acquired territory of Savoy, as a department of the republic. He passed the winter at Chamberry, the capital of Savoy, where, at the request of his legislative friends, he wrote an address to the people of Piedmont, inciting them to throw off their allegiance "to the man of Turin, who called himself their king." This was immediately translated into French and Italian, and circulated widely through the whole of Piedmont, but without producing much popular effect. The rest of the winter was passed in the more peaceable employment of composing a mock heroic poem in three cantos, entitled *Hasty Pudding*, one of the happiest and most popular of his productions. From Savoy he returned to Paris, where he continued to reside for about three years. During this, as well as his subsequent residence in Paris, with the exception of a translation of Volney's *Ruins*, his literary labors appear to have been nearly suspended, and he engaged in several plans of commercial speculation. His connexion with public men, and knowledge of political affairs, together with the great advantages of credit and of personal safety, which he derived from his character of a friendly neutral, enabled him to profit by those great and sudden fluctuations in the value of every species of property, which arose from the disjointed state of public affairs, the rapid depreciation of the *assignats*, and the frequent sales of confiscated estates. About the year 1795, Barlow was sent as an agent on private legal and commercial business to the north of Europe, and, soon after his return, was appointed American consul at Algiers, with powers to negotiate a treaty of peace with the dey, and to redeem all American citizens held in slavery on the coast of Barbary. He immediately proceeded on this mission, through Spain, to Algiers. Here he soon concluded a treaty with the dey, in spite of numerous obstacles thrown in his way by the agents of several of the European powers. In the beginning of the next year, he negotiated a similar treaty with Tripoli, and redeemed and sent home all the American prisoners whom he could discover among the captives of the Barbary powers. These humane exertions were made with great hazard and danger, sometimes, it is said, even at the

risk of his life. In 1797, he resigned his consulship, and returned to Paris, where he engaged in some very successful commercial speculations, and acquired a considerable fortune. As long as France retained the forms of a free constitution, he regarded it as his adopted country, and invested a large portion of his property in landed estates. Among other purchases which he made was that of the splendid hotel of the count Clermont de Tonnere, in Paris, in which he lived for some years, in an elegant and even sumptuous manner. On the rupture between his native country and France, occasioned by the maritime spoiliations of the latter, Barlow exerted all his influence and abilities to bring about an adjustment of differences. To assist in attaining this end, he published a Letter to the people of the U. States, on the measures of Mr. Adams's administration. At the same period, he drew up and presented a memoir to the French government, in which he boldly denounces the whole system of privateering as mere sea robbery.—After an absence of nearly 17 years, Barlow returned to his native country in the spring of 1805. After visiting several parts of the U. States, he purchased a beautiful situation in the neighborhood of Georgetown, but within the limits of the city of Washington, where he built a handsome house, and lived in an elegant and hospitable manner. Early in 1806, he drew up a prospectus of a great national academy, to be established under the immediate protection of the government, printed it at his own expense, and circulated it widely. In March of the same year, the plan was laid before congress, and referred to a committee, who never reported, and the project failed. In 1808, the *Columbiad*, which had been the labor of half his life, and had been gradually expanded from the *Vision of Columbus* to the bulk of a quarto, made its appearance in the most magnificent volume which had ever issued from the American press, adorned by a number of fine engravings, executed in London, by the first artists. It was inscribed, in an elegant and affectionate dedication, to Robert Fulton, the celebrated engineer. The high price at which the *Columbiad* was sold was by no means suited to the condition of the literary market in the U. States. Only a few copies were purchased. It was reprinted in 1809, in 2 vols., 12mo. In the same year, it was republished in London, by Philips, in an elegant royal 8vo. In spite of these aids, the *Columbiad* never acquired the

popularity which the *Vision of Columbus* enjoyed. It aspires to the dignity of a philosophical poem, and the narrative part is nearly overwhelmed by political declamation and philosophical discussions, and is deformed by pedantic and uncouth words of the author's own coinage. There are, besides, other faults, both of plan and execution, of a more serious character. After the appearance of the *Columbiad*, Barlow employed himself in making large collections of historical documents, and preparing the plan of a general history of the U. States, a work which he had long meditated. In the midst of these pursuits, he was, in 1811, nominated by the president minister plenipotentiary to the French government, and soon after sailed for France. He applied himself with great diligence to the duties of his new station, and to negotiating a treaty of commerce and indemnification for former spoiliations. In October, 1812, he was invited, by the duke de Bassano, to a conference with the emperor Napoleon, at Wilna. He immediately set off on his mission, travelling day and night. The weather was unusually severe, and the whole country through which he passed, after leaving France, was so wasted by contending armies as scarcely to afford him a comfortable meal. In a state of exhaustion, from want of food and sleep, the sudden changes from extreme cold to the excessive heat of the small and crowded cottages of the Jews, the only taverns in Poland, produced a violent inflammation in the lungs. He rapidly sunk into a state of extreme debility and torpor, from which he never recovered. He died, Dec. 22d, 1812, at Zarnawica, an obscure village of Poland, in the neighborhood of Cracow.—Mr. Barlow was of an amiable disposition: his manners were grave and dignified. In mixed company, he was generally silent, and often absent. He had no facility or sprightliness of general conversation; but on subjects which happened to excite him, he talked with interest and animation, and, among his intimate acquaintance, is said to have sometimes displayed a talent for pleasantry and humor.—All of his prose writings bear the stamp of an active, acute and nervous mind, confident in its own strength, and accustomed to great intrepidity of opinion. His political and moral speculations are often original, always ingenious, but deficient in those comprehensive views and that ripeness of judgment which are required by the complex nature of the subjects he examines.

BARMEN; a town on the Wupper, in the Prussian duchy of Cleve-Berg, with 19,472 inhabitants. B. contains the principal ribbon manufactories on the continent, comprising linen, woollen, cotton and silk ribbons of every quality. They are sent into all parts of the world.

BARNABITES; regular priests of the congregation of St. Paul, thus called from the church of St. Barnabas, which was granted to them. They were established in Milan, in 1536, and are dressed in black, like the secular clergy. They devoted themselves to missions, preaching, and the instruction of youth, and had, in Italy, where they taught theology in the academies of Milan and Pavia, in France, Austria and Spain, houses which they called *colleges*. In France and Austria, this order was employed in the conversion of the Protestants. It only exists, at present, in Spain and some places in Italy.

BARNACLE; a multivalve, molluscous, hermaphrodite and viviparous animal, belonging to Cuvier's sixth class—*mollusca cirrhopoda* (*lepas*, L.).—The various species of barnacle resemble each other in being enveloped by a mantle and shell, composed of five principal valves, and several smaller pieces, joined together by a membrane attached to their circumference. The mouth, which is oval, has lateral jaws, and along the belly, arranged in pairs, are 12 articulated and fringed *cirri* or *tentacula*. The heart is situated under the dorsal part of the animal, and the nervous system is composed of a series of small knots, or *ganglia*, under the belly: the gills are on the sides. The head of the barnacle is placed downwards in the shell, and the *tentacula* towards the superior part or orifice. Between the last pair of *tentacula* is a long, fleshy tube, sometimes mistaken for a trunk, at the base of which, towards the back, the anus opens. The stomach has a number of small cavities, formed by its wall, which appear to perform the functions of a liver. The intestine is simple: the ovary is double, and there is a double serpentine canal through which the ova must pass; the surfaces of this canal secrete the fecundating fluid, and they are prolonged into the fleshy tube, and open at its extremity. Cuvier was the first to give an accurate account of the curious structure of these animals.—The barnacles are always found attached to solid bodies, and especially to rocks, timber, &c., exposed to the dashing of the waves. They feed on small marine animals, brought within their reach by the motion of the waters,

and secure them by their *tentacula*, which are expanded and rolled up again with great celerity. They attain a very considerable size, in situations where they are left unmolested, and are occasionally used as food by men. They are, in some countries, supposed to possess aphrodisiac qualities; perhaps on account of their hermaphrodite nature.—We have no knowledge of the cause that originated the fable of barnacles being changed into geese; though such a fable is still in existence, and naturalists have perpetuated it by bestowing the name of *anas bernicla* on a goose, and of *anseriferus* on a species of barnacle.

BARNAVE, Antoine Pierre Joseph Marie, deputy to the states general of France, a distinguished orator, and a zealous adherent and early victim of the revolution, was born at Grenoble, 1761. He was the son of a rich *procureur*. He was of the Protestant religion, became a lawyer, was chosen a deputy of the *tiers-état* to the assembly of the states general, and showed himself an open enemy to the court. The constituent assembly appointed him their secretary, member of the committee for the colonies, also of the diplomatic committee, and, in January, 1791, their president. After the flight of the king, he was almost the only one who remained calm. He defended Lafayette against the charge of being privy to this step, and, after the arrest of the royal family, was sent, with Petion and Latour-Maubourg, to meet them, and to conduct them to Paris. The sight of their misfortunes, and the profanation of the royal dignity, seemed to have made a profound impression on his mind. He treated his captives with the respect due to their rank and misfortunes, and his reports were unaccompanied with remarks. From this moment a visible change in his principles was observed. He defended the inviolability of the royal person, and painted the fatal disasters which threatened the state. He opposed the ordinance which enjoined strong measures against the refractory priests; and succeeded, though with difficulty, in obtaining the repeal of the severe decree relating to the colonies. His influence continually declined, and he was entirely given up by the revolutionary party. When the correspondence of the court fell into the hands of the victorious party, Aug. 10, 1792, they pretended to have found documents which showed him to have been secretly connected with it, and he was guillotined Nov. 29, 1793.

BARNEVELDT, John van Olden; grand pensionary of Holland; a man of eminent talents and the simplest manners; a martyr to duty and republican principle; an example of virtue, such as history seldom presents us. He was born in 1549, and early showed himself zealous for the independence of the United Provinces, which had thrown off the yoke of Spain. As advocate-general of the province of Holland, he displayed profound views and great skill in business. The services of 30 years established his high reputation. He preserved his country against the ambition of Leicester; penetrated the secret plans of Maurice of Nassau, whom his fellow-citizens had elevated to the post of stadtholder; and his marked distrust of this prince placed him at the head of the republican party, which aimed to make the stadtholder subordinate to the legislative power. Spain, at that time, made proposals for peace through the archduke, governor of the Netherlands. B. was appointed plenipotentiary on this occasion, and evinced alike the skill of a statesman and the firmness of a republican. Maurice of Nassau, whose interest led him to prefer war, labored to prevent the establishment of peace; and B., perceiving this, was induced only by the most urgent solicitations of the states, to retain the office which had been assigned to him, and at last concluded, in 1609, an armistice with Spain for the term of 12 years, in which the independence of Holland was acknowledged. His influence now became still greater, and he was more and more an object of jealousy to the house of Nassau. The hostile spirit of the opposite parties in the state was further increased by theological difficulties. In order to prevent a civil war, B. proposed an ecclesiastical council, which resolved upon a general toleration in respect to the points in question. The states acceded, at first, to this wise measure; but, at a later period, the machinations of the Nassau party persuaded them to adopt other views. This party represented the Arminians (q. v.) as secret friends of Spain. B. was now attacked in pamphlets, and, even in the assembly of the states, was insulted by the people, of whom Maurice had become the idol. As he could not hope any longer to stay the torrent, and foresaw the fate which awaited him, he again determined to resign his office; but the solicitations of his friends, and his love for his country, prevailed anew over all other considerations. Maurice insisted

upon a general synod, with a view, as he pretended, of putting an end to all religious quarrels; but B. persuaded the states to oppose this measure, the consequences of which were evident. Troops were now levied, without the consent of Maurice, to reestablish order in the cities where the Gomarists (see *Arminians*) had excited disturbances. On the other side, the Nassau party redoubled its attacks upon B., who, in answer to them, published that celebrated memorial, in which he warns the United Provinces of the danger which threatened them from the other party. Maurice, however, procured the assembling of a synod at Dort, in 1618, to which almost all the Calvinistic churches of Europe sent deputies. They condemned the Arminians with the most unjust severity, and Maurice was encouraged by their sentence to adopt violent measures. Against the wishes of the states, he caused B., and other leading men of the Arminians, to be arrested; and 26 bribed judges condemned to death, as a traitor, the man to whom his country owed its political existence, and who disdained to implore mercy. Vain were the remonstrances of the widowed princess of Orange and of the French ambassador; in vain did the friends and relations of the patriot exclaim against the sentence; Maurice remained firm in his evil purpose. On the 13th of May, 1619, the old man of 72 ascended the scaffold, with the words of Horace, iii. 3,—

Justum ac tenacem propositi virum,
Non vultus instantis tyranni,
Non civium ardor prava jubentium
Mente quait solida,—

and suffered death with the same firmness which he had evinced under all the circumstances of his life. His two sons formed a conspiracy against the tyrant. William, the principal agitator, escaped; but Reinier was taken and executed. His mother, after his condemnation, threw herself at the feet of Maurice to beg for mercy, and to his question, why she humbled herself thus for the sake of her son, when she had not done it for her husband, made this memorable reply:—"I did not ask pardon for my husband, because he was innocent: I ask it for my son, because he is guilty."

BARNEY, Joshua, a distinguished naval commander in the service of the U. States, was born in Baltimore, Maryland, July 6, 1759. His parents lived on a farm between the town and North point, where he was sent to school until 10 years of age. He was then put into a retail shop

at Alexandria, but, soon becoming tired of that occupation, returned to Baltimore in 1771, and insisted on going to sea. He first went out in a pilot-boat with a friend of his father, and afterwards made several voyages to different places in Ireland and the continent of Europe. In the last of them, the care of the ship devolved upon him, though but 16 years of age, in consequence of the illness of the captain and the discharge of the mate. He remained in the command eight months, and finally returned to Baltimore, after passing through some difficult scenes. At that period, the war having commenced between Great Britain and the colonies, B. offered his services to the latter, and obtained the situation of master's mate in the sloop of war *Hornet*, commanded by captain William Stone. He carried the first flag of the U. States seen in the state of Maryland, whilst beating up for volunteers for the vessel. In 1775, the *Hornet* joined the fleet of commodore Hopkins, which sailed to New Providence, one of the Bahama islands, captured the town and fort, and the vessels in the harbor, and returned to the Delaware, having given the island up again, after securing the cannon, powder, shells, mortars, &c. —In 1776, when not yet 17 years of age, he was presented with a lieutenant's commission by Robert Morris, president of the marine committee, on account of his conduct whilst serving in the schooner *Wasp*, in the Delaware bay, during an action between the English brig *Tender* and that vessel, which resulted in the capture of the former under the very guns of two of the enemy's ships. Soon after that affair, he sailed in the *Sachem*, captain Isaiah Robinson, in the capacity of lieutenant, and brought into port an English brig, taken after a severe action of two hours.—On returning from the West Indies, the *Sachem*, Andrew Doria and Lexington, made two prizes, on board of one of which B. was placed as prize-master. But, after beating about several days in a heavy gale of wind, he was captured by the *Perseus*, of 20 guns. The captain of the British vessel exchanged his prisoners at Charleston, South Carolina. In the spring of 1777, B. again joined the Andrew Doria, and took part in the defence of the Delaware. He was afterwards ordered to Baltimore, to join the Virginia frigate, captain Nicholson, but, in attempting to get her to sea, the pilot ran her on shore, and she was captured by the British. In August, 1778, he was exchanged, but was soon

again taken in the Chesapeake bay, by a privateer of 4 guns and 60 men, whilst commanding a schooner of 2 guns and 8 men. The U. States having no vessels, at this time, out of the Middle States, B. accepted the offer of his old friend and commander, captain Robinson, in November, 1778, to go with him from Alexandria, in a ship, with a letter of marque. After a severe action with the privateer *Rosebud*, they arrived at Bordeaux, took a cargo of brandy, mounted 18 guns, and shipped 70 men. On their return, they made a valuable prize, after a running fight of nearly two days. B. took command of the prize, and arrived safe in Philadelphia, in October, 1779.—In 1780, he married the daughter of alderman Bedford; and, in the following month, whilst going to Baltimore, was robbed of all his fortune, which he had with him in paper money. He returned to Philadelphia, without mentioning his loss, and soon after went into service on board the U. States' ship *Saratoga*, of 16 guns, commanded by captain James Young. The same year, he was taken prisoner by the English, and sent to Plymouth, in England, where he was confined in the Mill prison for some time, when he escaped in a British officer's undress uniform. He was retaken, but escaped again, and arrived in Philadelphia in March, 1782. A few days afterwards, the state of Pennsylvania gave him the command of the *Hyder Ally*, a small ship of 16 guns, in which he proceeded down the bay with a convoy. Whilst lying in cape May road, waiting for a favorable wind, three vessels were discovered standing in from sea, one of which, the ship *General Monk*, captain Rogers, of 20 guns, the *Hyder Ally* engaged, and captured after a brisk fire of 26 minutes. 30 of the crew of the *General Monk* were killed, and 53 wounded, besides 15 out of 16 officers on board, killed or wounded. On board the *Hyder Ally*, there were 4 killed and 11 wounded. For this gallant exploit, the legislature of Pennsylvania voted B. a sword, which was presented to him by the governor. The *General Monk* was sold, and bought by Mr. Morris for the U. States, and the command given to B., who sailed, with sealed orders, in November, 1782, with despatches to doctor Franklin, in Paris. He was well received at the French court, and returned to Philadelphia with a valuable loan from the French king—a large sum of money in chests of gold and barrels of silver—and brought with him a passport signed by

the king of England, and the information that the preliminaries of peace were signed.—In 1795, B. received the commission of captain in the French service, and commanded a French squadron, but, in 1800, resigned his command, and returned to America. In 1812, when war was declared against Great Britain, he offered his services to the general government, and, in 1813, was appointed to the command of the flotilla for the defence of the Chesapeake. During the summer of 1814, whilst in that situation, he kept up an active warfare with the enemy, until the 1st of July, when he was ordered to Washington, to consult about the expected invasion, and the means of defending the capital. He returned to the flotilla on the 3d. On the 16th, the enemy entered the Patuxent; and, on the 21st, the commodore landed most of his men, and joined general Winder, at the Woodyard, where he found captain Miller and his marines, with 5 pieces of artillery, which were placed under his command. He proceeded with his force to the city, and was ordered to protect the bridge; but, the next day, with the permission of the president, he set out for Bladensburg, with his guns and men, to join the army. He had scarcely reached the field of battle, when he perceived the Americans in full retreat, and the enemy advancing. He, however, kept up a brisk fire upon the British for some time, but was at length obliged to order a retreat, when in great danger of being surrounded by the enemy, and having himself received a wound in the thigh. In withdrawing, he fell, from weakness caused by loss of blood, and was found in this situation by the enemy, by whom he was treated with kindness, and carried in a litter to the town of Bladensburg. His wife, one of his sons and his surgeon came to him on the 27th of August, and, after a night's rest, carried him home. The wound had been probed by the English surgeons, but without finding the ball. His surgeon was equally unsuccessful, and it was never extracted. The corporation of Washington voted him a sword, and the legislature of Georgia passed a vote of thanks to him for his conduct. The following May, he was sent on a mission to Europe, and returned, in October, to Baltimore, where he found himself crippled by his wound. After remaining at his farm on Elkridge until his strength was restored, he removed to Baltimore, but, in the course of a few months, came to the determination of emigrating, with his

family, to Kentucky. He set out in consequence, having made every necessary preparation, but, at Pittsburg, was taken ill, and died, Dec. 1, 1818, in the 60th year of his age. Every honor was paid to his memory. Commodore Barney was a remarkably handsome man, an able, thorough seaman, and a most acute and spirited officer.

BAROCCIO, or BAROZZI, Frederic, a famous painter of the Roman school, born at Urbino, lived from 1528 to 1612. He studied at Venice, and copied much after Titian. When he went to Rome, Raphael exerted the same influence over him which Titian had done before. He afterwards endeavored to adopt the style of Correggio, but not with equal success. His coloring remained monotonous. Mengs censures him for always representing objects as if they were seen in the air, between transparent clouds, and for endeavoring to make the most opposite colors harmonize merely by means of the light. He is not free from mannerism. Among his best works are the *Flight of Aeneas*, or the *Conflagration of Troy*, engraved by Agostino Carracci, and to be found in the former gallery Borghese; the *Descent from the Cross*, at Perugia, and a burying piece, engraved by Siderer.

BAROMETER; an instrument to measure the pressure of the air and its changes. It ordinarily consists of a tube of glass, containing mercury, closed at top, and exhausted of air. The mercury ascends under a greater and descends under a less pressure of air. Evangelista Torricelli, a pupil of Galileo, and his successor as mathematical teacher at Florence, was the inventor of the barometer, about the middle of the 17th century. He thought that the same cause which raises water but 33 or 34 feet high (see *Atmosphere*), a discovery of Galileo, ought to raise mercury, which is nearly 14 times heavier, only 29 or 30 inches high. He therefore closed a tube of glass, several feet long, hermetically at one end, then filled it with mercury through the orifice at the other end, and inverted it in a vessel of mercury. He was not deceived in his expectations: the mercury descended from the upper part of the tube, and remained in a column, 29 or 30 inches high. The upper part of the tube, which, in this experiment, became empty, was thence called the *Torricellian vacuum*. Further experiments of Torricelli proved the correctness of his idea that the column of mercury was supported by the pressure of a column of air resting upon the col-

umn of mercury in the tube, and extending to the limits of the atmosphere. Whilst Torricelli was still occupied with this object, death overtook him, in 1647. The above-described preparation, which is the barometer itself, is called, after him, the *Torricellian tube*. Pascal adopted his opinions, and performed many experiments in confirmation of them. He requested one of his relations, Perrier, at Clermont, in Auvergne, to make a trial of the pressure of the air on the mountain Puy-de-Dome. Perrier found that the quicksilver in the Torricellian tube, upon the summit of this mountain, 5000 feet high, stood more than three Parisian inches lower than at the foot of the mountain; and thus demonstrated that it was not the horror of a vacuum (*horror vacui*), as had been previously supposed, but the pressure of the column of air (the height and the weight of which were less on the mountain), that supported the column of mercury in the tube. The gradual fall of the mercury, in ascending the mountain, was also observed. It could not escape the notice of the first inventors of the barometer, that the situation of the mercury in the Torricellian tube was almost daily changing. They concluded that the pressure of the atmosphere must be subject to continual changes, and that, on this account, this instrument would be useful for pointing out and measuring these changes. Otto von Guericke and others paid particular attention to this subject. They soon gave the instrument the name of *barometer*, that is, a *measurer of the weight of the air*, and began to foretell, by the ascent and fall of the mercury, the changes of the weather, which procured it, among the people, the name of *weather-glass*. These changes are indicated by this instrument, because fair weather is usually united with dry air, and foul weather with moist air; and the weight of the air changes according to its dryness or humidity. Although the simple tube of Torricelli was sufficient to indicate these changes, yet many improvements have been made in it. Among others, the tube is bent at the bottom, and on the end, thus turned upwards, is fixed a round or oblong vessel, open at the top, into which the mercury is poured, upon which the pressure of the air operates. The whole tube is further fastened, with the above-mentioned cup attached to it, to a wooden frame, upon which a scale of degrees is marked, which indicates accurately the ascent and fall of the mercury. This is the present construc-

tion of the barometer. Since the fall of the mercury is in a certain proportion to the height ascended, the barometer may be used for the measurement of heights. For this purpose, however, the common arrangement is not sufficient. De Luc found the siphon barometer, which takes its name from its shape, the most useful in making such measurements. In this barometer, the columns of mercury, in both legs of the tube, are of an equal diameter; a scale is also marked on both legs. That a barometer may be accurate, it is necessary, 1st, that the exterior air only should operate upon it; for which purpose the air must be entirely expelled from the tube; for, if the air is admitted, the column of mercury will not ascend to its proper elevation. In the manufacture of the barometer, the mercury is boiled in the tube, to expel all the air. 2d. The scale must be accurate; and, 3d, the barometer should hang perfectly perpendicular. In observing the barometer, the eye must be kept in an exact level with the upper surface of the mercury, which must be measured at the highest point of its convexity. The optician Alexander Adir has invented a barometer, the movable column of which is of oil, which encloses in a tube a certain quantity of nitric acid, whose diameter is diminished according to the density of the atmosphere. He gave it the name of *sympiesometer*.—(For further information, see Biot's *Traité Général de Physique*, and Farrar's *Treatise on Mechanics*, Cambridge, Mass., 1825).

BARON (originally, also, *varo*); a word derived from the Latin, which signifies a *man*, and, sometimes, a *servant*. In the feudal system of the middle ages, at first, the immediate tenant of any superior was called his *baron*. In old records, the citizens of London are so styled, and the 16 members of the house of commons, elected by the cinque-ports, are still called *barons*. The family of Montmorency called themselves, in France, *premiers barons de la chrétienté*. This name was introduced by William the Conqueror from Normandy to England, and used to signify an immediate vassal of the crown, who had a seat and vote in the royal court and tribunals, and, subsequently, in the house of peers. It was the second rank of nobility, until dukes and marquises were introduced, and placed above the earls, and viscounts also set above the barons. In Germany, the ancient barons of the empire were the immediate vassals of the crown. They appeared in the imperial court and diet, and belonged to the high nobility. But

these ancient feudatories were early elevated to the rank of counts or princes. The modern barons only form a rank of lower nobility after the counts.—*Barons of the exchequer*; four judges in England and five in Scotland, to whom the administration of justice is committed, in causes between the king and his subjects, relating to the revenue. They were formerly *barons of the realm*, but, of late, are, generally, persons learned in the laws.

BARON, Michael; a celebrated French actor, born at Paris in 1652; equally successful in tragedy and comedy. Preachers are said to have attended in a grated box to study his action. Such was his vanity, that he said, every century produced a Cæsar, but it required 2000 years to produce a Baron. He died in 1729.

BARON and FEME. (See *Husband and Wife.*)

BARONETS; a hereditary dignity in Great Britain and Ireland, next in rank to the peerage, originally instituted by James I, May 22, 1661. It is said that lord chancellor Bacon suggested the idea, and the first baronet was sir Nicholas Bacon of Redgrave. Baronets are created by patent, under the great seal, and the honor is generally given to the grantee and the heirs male of his body lawfully begotten, though sometimes it is entailed on collaterals. From the preamble of the original patent, it appears that the order was created to get money for the support of soldiers in Ireland, each baronet, on his creation, being obliged to pay into the treasury a sum little less than £1100. In 1823, there were 661 baronets in England. Precedency is given to baronets before all knights, except those of the garter, bannerets created on the field, and privy counsellors.

Baronets of Ireland; an order instituted by James I, for the same purpose, and with the same privileges, as the baronets of England. Since the union, in 1801, none have been created otherwise than as baronets of the United Kingdom. A hereditary dignity, somewhat similar to knighthood, appears to have been conferred, in this country, even in very ancient times.

Baronets of Nova Scotia, and Baronets of Scotland. Charles I instituted this order in 1621, for the purpose of advancing the plantation of Nova Scotia, in which the king granted a certain portion of land to each member of the order. Since the union, the power of the king to create new baronets within Scotland is held to have ceased.

BARONIUS, or **BARONIO**, Cæsar; born at

Sora, in the kingdom of Naples, Oct. 30, 1538; received his early education in Naples; in 1557, went to Rome; was one of the first pupils of St. Philip of Neri, and member of the congregation of priests of the oratorio founded by him; afterwards cardinal and librarian of the Vatican library. He owed these dignities to the services which he rendered the Catholic church by his Ecclesiastical Annals, on which he labored, with indefatigable assiduity, from the year 1580 until his death, June 30, 1607. They comprise a rich collection of genuine documents from the papal archives, and are, therefore, of great use to the student of ecclesiastical history, but contain many false statements and unauthentic documents; and the air of sincerity, which prevails throughout, is calculated to give very erroneous ideas of the papal administration of the church. They are principally written to confute the Centuries of Magdeburg, and to prove that the doctrine and the constitution of the church had remained the same from the beginning. These *Annales Ecclesiastici a Christo nato ad A. 1198, a C. Baronio* (Rome, 1588—1607, 12 vols., folio), were often reprinted, with the corrections of the author. At Mentz, an edition was commenced, in 1601, in 12 vols., folio. The Antwerp edition, however, begun in 1589, in 10 vols., folio, is handsomer, but does not contain the treatise *De Monarchia Siciliæ*, which contests the ecclesiastical privileges of the king of Sicily, known by the above name, and, therefore, was forbidden by the Spanish court. Many errors, particularly chronological, were corrected by the Franciscan Anthony Pagi, in his excellent criticism on the work (*“Critica Historico-chronologica in Ann. Baron. Antwerp”*; Geneva, 1705, 4 vols., folio). Other Catholic writers have also mentioned his errors, against which the censures of the Protestants have been more particularly directed. Among the continuations of the Annals, none of which is equal to the work of B., Raynaldi has furnished the most copious (ab a. 1198—1565, Rome, 1646, 8 vols., folio; continued until 1671 by Laderchi, Rome, 1728, 3 vols., folio).

BARQUISIMETO; a city in Venezuela, 110 miles W. S. W. Caracas, 440 N. N. E. Santa F^e de Bogota; lat. 9° 45' N.; pop., 11,300. It is situated on an elevated plain, and is regularly laid out, and well built. The surrounding country is fertile. Cacao grows abundantly there. Coffee has been planted recently. B. was founded by the Spaniards, in 1552.

BARRA, or BAR; a kingdom in Africa, near the mouth of the Gambia, on the borders of which it extends about 60 miles. The Mandingoes form a considerable part of the inhabitants. They are Mohammedans, have public schools, and are the most civilized people on the Gambia. The population is estimated at 200,000.—*Burra*, or *Barra Inding*, the capital, is a populous town, near the point of B., on the north side of the Gambia. Lon. 16° 45' W; lat. 13° 25' N.

BARRAS, Paul François Jean Nicholas, comte de, member of the national convention, afterwards of the executive directory, born at Fox, in Provence, June 30, 1755, of the family of Barras, whose antiquity in this quarter had become a proverb, served as second lieutenant in the regiment of Languedoc until 1775. He made, about this time, a voyage to the Isle-de-France, the governor of which was one of his relations, and entered into the garrison of Pondicherry. He afterwards served in Suffren's squadron, and at the cape of Good Hope. At his return, he gave himself up to gambling and women, and dissipated his fortune. The revolution broke out. He immediately showed himself an opponent of the court, and had a seat in the *tiers-état*, whilst his brother was sitting in that of the nobility. July 14, 1789, he took part in the attack upon the Bastille, and, Aug. 10, 1792, upon the Tuileries. He was afterwards elected a jurymen at the tribunal of Orleans, and, in September, a member of the national convention, where he voted for the death of Louis XVI. In October, he was sent with Fréron into the southern provinces, and showed himself at Marseilles less violent than the latter. Although he had established his reputation as a patriot, yet he displeased Robespierre. B.'s threat to repel force by force alone restrained him. Robespierre resolved to involve him in the great proscription, which he then meditated. On this account, B. joined the members of the committee, who also foresaw the danger which awaited them, and were determined to strike an effectual blow, and overthrow their oppressor. He therefore took an important part in the events of the 9th Thermidor (July 27, 1794). He was intrusted with the chief command of the forces of his party, repelled the troops of Henriot, and made himself master of Robespierre. Feb. 4, 1795, he was elected president of the convention. The 13th Vendémiaire (Oct. 5, 1795), when the troops of the sections, which favored the royal cause, approached

the convention, Barras, for a second time, received the chief command of the troops of the convention, and the battalion of the patriots, who hastened to their assistance. On this occasion, he employed general Bonaparte, whose services were of the highest importance to him. In his report, he attributed the victory to this young general, and, a few days after, procured for him the chief command of the army of the interior. His important services promoted him to the directory. It is said that Bonaparte owed to him the command of the army of Italy. However this may be, Barras soon perceived that Bonaparte would give a decisive superiority to him who should obtain an influence over him; and, therefore, he displaced Carnot from the war department, and took possession of it himself. This separated them, and Carnot, for some time, took part with the council, where a party had been formed to restrain the power of the directory, and particularly that of Barras. The rupture could only terminate with the ruin of one of the parties: that of the council fell by the events of the 18th Fructidor (Sept. 4, 1797), in which Barras took a leading part. From this period, he governed absolutely until the 13th June, 1799, when Sieyès entered the directory. Nevertheless, Barras succeeded in preserving his seat, whilst Merlin de Douay, Treillard and La Réveillère-Lepeaux were compelled to give in their resignation. He himself became a victim of the 18th Brumaire (Nov. 9, 1799). In a badly-composed letter, which he sent to St. Cloud, he resigned his office, and received, upon his request, from the first consul, a passport to his estate. He afterwards retired to Brussels, where he lived for several years; but, finally, received permission to repair to the south of France. He died in January, 1829. His memoirs are expected soon to appear.

BARRATOR, COMMON. (See *Barratry, common*.)

BARRATRY, in commerce, is usually considered to be any fraud or knavery committed by the master or mariners of a ship, whereby the owners or freighters are injured. It has been held, in one case, that barratry may be committed on land, and by other persons than the master and mariners of a ship. Some goods insured from London, by land carriage, to Harwich, and thence to Gothenburg, sustained damage by the misconduct of the carriers. Lord Ellenborough held that this damage was insured against, in a policy against barratry. The following are among the acts which have been considered barra-

trous, viz., evading foreign port-duties; deviation from the usual course of the voyage, by the captain, for his own private purposes; or dropping anchor, to go ashore on his own affairs; cruising against an enemy contrary to instructions; trading with an enemy, whereby the ship is exposed to seizure; wilful violation of a blockade; a wilful resistance of search by a belligerent vessel, where the right of search is legally exercised; and even negligence, when so gross as to bear a fraudulent character, is barratry; and, more especially, embezzlement of any part of the cargo; and the shipper recovers against the underwriters for such an act of barratry, even though it is consented to by the owners of the ship. Under insurance against barratry, the underwriters are liable for any barratrous act of the mariners, which could not have been prevented by ordinary diligence and care on the part of the captain. And as far as the circumstance of barratry depends upon its being an act against the owners, it is sufficient that it be prejudicial to the charterers, who are, for this purpose, considered the owners.—It is obviously of great importance to protect the owners of ships and cargoes against the fraud and knavery of those to whose care they are intrusted; and, because property at sea is commonly beyond the care and superintendence of the owner, and is necessarily intrusted to the master and mariners, the laws usually punish any embezzlement, or wilful destruction of it by them, with great severity. By an act of congress, March 26, 1804, it is enacted, that “any person, not being an owner, who shall, on the high-seas, wilfully and corruptly cast away, burn or otherwise destroy any vessel unto which he be-longeth, being the property of any citizen, or citizens, of the United States, or procure the same to be done, shall suffer death.” And the same penalty is enacted against any owner, or part-owner, for the same act done with intent to prejudice an underwriter on a policy of insurance, or a shipper, or any other part-owner. The British statutes are of the same import.

Barratry, common, is the stirring up of suits and quarrels between other persons, and the party guilty of this offence is indictable as a *common barrator*, or *barretor*. But more than one instance is necessary to constitute the offence; and any number of suits brought in the party's own name, if there be any color for them, do not constitute this offence. The commencing of

suits in the name of a fictitious plaintiff is *common barratry*.

BARRÈRE, Bertrand, de Vieuzac, born at Tarbes, Sept. 10, 1755, of a respectable family, was advocate of the parliament at Toulouse, and attracted attention by his easy and elegant delivery. In 1789, he was chosen deputy to the states general, where he openly expressed his republican principles. He was afterwards a member of the convention, and, Nov. 29, 1792, elected their president. Louis XVI was examined, for the first time, Dec. 11, under the presidency of B., who voted for his death. He became one of the most active members of the committee of safety. From Sept. 21, 1792, when the convention was opened, until July 27, 1794 (9th Thermidor), few sessions took place at which B. did not occupy the tribune. As he spoke on all the measures of the reign of terror in flowery and poetical language, he was called *l'Anacréon de la guillotine*! On the day previous to Robespierre's fall, B. pronounced his eulogy; but, when he saw that the convention declared itself against him, he deserted him, took part in the proceedings of the 9th Thermidor, and preserved, by this means, some influence. In March, 1795, he was condemned to deportation, but escaped by flight. The first consul revoked his banishment after the revolution of the 18th Brumaire. He afterwards edited a journal, *Mémorial Anti-Britannique*. He appeared, on all occasions, a zealous defender of Napoleon, yet without playing any important part during his reign. In 1815, he was banished, like all the regicides, who had entered into the service of Napoleon after his return from Elba.

BARRICADE, or BARRICADO; those objects which are hastily collected, to defend a narrow passage (for instance, the street of a village, a defile, a bridge, &c.), the removing of which retards the enemy, and gives to the sharpshooters, posted behind or in its neighborhood, an opportunity of firing upon them with effect. Wagons, harrows, casks, chests, branches of trees, beams,—in short, every thing which is at hand is used for this purpose; and, if it is necessary that the enemy, when consisting principally of cavalry, should be checked in the pursuit, though it be but for a moment, the ammunition and baggage-wagons may be employed with effect.

BARRIER TREATY. When, by the peace of Utrecht, the Spanish Netherlands were ceded to Austria, 1715, this session was agreed to by the Dutch, who had conquer-

ed these provinces in alliance with England, only on condition that they should have the right (in order to secure their borders against their powerful neighbor) to garrison several fortresses of the country, viz., Namur, Tournay, Menin, Furnes, Warneton, Ypres, and the fort of Kenock, and to maintain, in common with Austria, a garrison in Dendermonde; and that Austria should engage to pay yearly to Holland 350,000 dollars for the support of these garrisons. The treaty which was concluded between these two powers; in 1718, was called the *Barrier treaty*. In 1781, the emperor Joseph II declared it void, notwithstanding all the remonstrances of the states general.

BARRINGTON, Daines; fourth son of the first viscount Barrington; distinguished as a lawyer, antiquary and naturalist. He was born in 1727, and, after preparatory studies at Oxford and the Inner Temple, was called to the bar. He held several offices previous to his being appointed a Welsh judge in 1757; and was subsequently second justice of Chester till 1785, when he resigned that post, and, thenceforward, lived in retirement, chiefly at his chambers in the Inner Temple, where he died, March, 1800. His works are numerous; among them is *Tracts on the Probability of reaching the North Pole*, 1775, 4to.

BARRISTER; in England, an advocate or counsellor, who has been admitted by one of the inns of court, viz., the Inner Temple, Middle Temple, Lincoln's Inn, or Gray's Inn, to plead at the bar. Before a student can be admitted to the bar, he must have been a member of one of those societies, and have kept terms there for five, or, if he be a master of arts of either of the universities of Cambridge, Oxford or Dublin, for three years. Twelve public disputations, or legal theses, were formerly required; but these have now dwindled into mere forms. Barristers are also called *utter* or *outer barristers*, to distinguish them from serjeants and king's counsel, who sit within the bar in the courts. They are also styled, in the old books, *apprenticii ad legem*, as being still but apprenticed to the profession, to the highest grade of which (that of serjeant, or *serviens ad legem*) they could not be admitted until they had sat without the bar, through the apprenticeship of 16 years. The duties of a counsel are honorary, and he can maintain no action for his fees, which are considered as a gratuity, and not as hire. In the U. States, the degree of barrister, though not formally abolished, has fallen into disuse.

BARROS, Joan de, the most illustrious of the Portuguese historians, born at Viseu, 1496, was descended from an ancient noble family. At first one of the pages of the king Emanuel, he distinguished himself so much by his talents and address, that the king selected him, at the age of 17, for the companion of the prince royal. He employed all his leisure time in reading Sallust, Livy and Virgil. He wrote his first work, in the midst of the distractions of the court, in the antichamber. It was a historical romance, entitled the *Emperor Clarimond*, distinguished for beauty of language. It appeared in 1520, the author being but 24 years old. B. presented it to the king, who urged him to undertake the history of the Portuguese in India. The king died a few months after, but his orders were executed, and this historical work appeared 32 years later. King John III appointed B. governor of the Portuguese settlements in Guinea, and, afterwards, general agent for these colonies. He performed the duties of this office with understanding and honesty. The king presented him, in 1530, with the province of Maranh in Brazil, for the purpose of colonization. B. lost a great part of his fortune by the enterprise, and returned the province to the king, who indemnified him for his losses. At the age of 72 years, he retired to his estate Alitem, where he died after three years. His work *L'Azia Portuguesa*, upon the doings of the Portuguese in India, consists of 40 books, and probably will always remain a standard work in this department of literature. He wrote, besides, a moral dialogue, *Rhopicancuma*, in which he shows the pernicious consequences of accommodating principles to circumstances; but this work was prohibited by the inquisition. He has written also a dialogue on false modesty, and a Portuguese grammar, the first ever published.

BARROW, Isaac, an eminent mathematician and divine, was the son of Mr. Thomas Barrow, a respectable citizen and linen-draper of London, in which city he was born in 1630. His childhood gave no presage of his future celebrity; for, at the Charter-house, where he was educated, he was chiefly remarkable for fighting and neglect of study. Being removed to a school at Felsted, in Essex, he began to show some earnest of his future great reputation. He was subsequently entered a pensioner of Trinity college, Cambridge, of which he was chosen a scholar, in 1647. The ejection of his uncle, the bishop of

St. Asaph, from his fellowship of Peterhouse, in consequence of his adherence to the royal party, and the great losses sustained by his father in the same cause, left him in a very unprovided condition. His good disposition and great attainments, however, so won upon his superiors, that, although he refused to subscribe to the covenant, he was very highly regarded. In 1649, he was elected fellow of his college, and, finding that opinions in church and state opposite to his own now prevailed, proceeded some length in the study of anatomy, botany and chemistry, with a view to the medical profession. He however changed his mind, and to the study of divinity joined that of mathematics and astronomy, unbending his mind by the cultivation of poetry, to which he was always much attached. In 1652, he graduated M. A. at Oxford, and, being disappointed in his endeavor to obtain the Greek professorship at Cambridge, engaged in a scheme of foreign travel. He set out in 1655; and, during his absence, his first work, an edition of Euclid's Elements, was published at Cambridge. He visited France and Italy, where he embarked for Smyrna; and, the ship in which he sailed being attacked by an Algerine corsair, he stood manfully to the guns until the enemy was beaten off. From Smyrna he proceeded to Constantinople, returned, in 1659, by way of Germany and Holland, and was soon after episcopally ordained by bishop Brownrigg. In 1660, he was elected Greek professor at the university of Cambridge, without a competitor. At the recommendation of doctor Wilkins, afterwards bishop of Chester, he was, in 1662, chosen professor of geometry in Gresham college, and, in 1663, the royal society elected him a member of that body, in the first choice after their incorporation. The same year, he was appointed the first Lucasian professor of mathematics at Cambridge, on which occasion he delivered an excellent prefatory lecture on the utility of mathematical science. In 1669, on a conscientious principle of duty, he determined to give up mathematics, and adhere exclusively to divinity. Accordingly, after publishing his celebrated *Lectiones Opticæ*, he resigned his chair to a successor worthy of him—the great Newton. In 1670, he was created D. D. by mandate, and, in 1672, the king nominated him to the mastership of Trinity college, observing that he had bestowed it on the best scholar in England. He had, before this, refused a living, given him with a

view to secure his services as a tutor to the son of the gentleman who had it to bestow, because he deemed such a contract simoniacal; and he now, with similar conscientiousness, had a clause in his patent of master, allowing him to marry, erased, because incompatible with the intentions of the founder. In 1675, he was chosen vice-chancellor of the university of Cambridge; but the credit and utility expected from his labors were frustrated by his untimely death, from a violent fever, in May, 1677, in the 47th year of his age. The works of doctor Barrow, both mathematical and theological, are of the highest class. Of the former, the following are the principal:—*Euclidis Elementa*, Cantab., 1655, 8vo.; *Euclidis Data*, Cantab., 1657, 8vo.; *Lectiones Opticæ*, Lond., 1669, 4to.; *Lectiones Geometricæ*, Lond., 1670, 4to.; *Archimedis Opera, Apollonii Conicorum*, lib. iv.; *Theodosii Sphericorum*, lib. iii, *novo methodo illustrata et succincte demonstrata*, Lond., 1675, 4to.; *Lectio in qua Theoremata Archimedis de Sphæra et Cylindro per Methodum indivisibilium investigata*, &c., Lond., 1678, 12mo.; *Mathematicæ Lectiones*, Lond., 1683. The two last works were not published till after his death. All his English works are theological: they were left in MS., and published by doctor Tillotson, in 3 vols., folio, Lond., 1685. *Isaaci Barrow Opuscula*, appeared in 1697, Lond., folio. As a mathematician, especially in the higher geometry, Barrow was deemed inferior only to Newton: as a divine, he was singularly distinguished for depth and copiousness of thought; and he so exhausted the subjects which he treated in his sermons, that Charles II. used to call him an *unfair* preacher, for leaving nothing to be said after him. Le Clerc speaks of his sermons as exact dissertations, rather than addresses to the people; and, although unusually long, they so abound in matter, that his language sometimes labors in the expression of it; whence his style is occasionally involved and parenthetical. Passages of sublime and simple eloquence, however, frequently occur; and, although his divinity is less read now than formerly, it is not unfrequently resorted to as a mine of excellent thoughts and arguments. A fine specimen of his characteristic copiousness is quoted, by Addison, from his sermon on Vain and Idle Talking, in which the various forms and guises of wit are enumerated with a felicity of expression which it would be difficult to parallel. Doctor Barrow was himself celebrated for wit,

and still more for his personal courage, which was always remarkable. In external appearance, he exhibited more of the scholar than the man of the world; being short in his person, meager in his countenance, and slovenly in his habits. These, however, were but small defects in a man otherwise so highly gifted, and so modest, conscientious and amiable. Charitable even in bounded circumstances, altogether disinterested in prosperity, and serene and contented in all fortunes, he was at once the divine and philosopher, leaving little property other than his books, and the reputation of being one of the greatest ornaments to his country.

BARROWS. (See *Tumuli*.)

BARRY, James T., a painter, and writer on his art, was born at Cork, in Ireland, in 1741, and died in 1806. His father was employed in the coasting trade between England and Ireland, and had destined him for the same business; but his irresistible inclination for drawing and painting prevailed. By one of his first paintings in oil, representing the *Landing of St. Patrick in Ireland*, he attracted the attention of the famous Burke, who carried him, in his 23d year, to London, and recommended him to the *Athenian Stuart*, so called, by whom he was employed in copying old paintings in oil. The brothers Burke provided him with the necessary means for visiting Paris and Rome, from whence he went to Florence, Bologna and Naples. He remained three years in Italy, formed his genius by the study of the great masterpieces, and wrote able criticisms upon them. Among his productions, *Adam and Eve*, *Venus*, *Jupiter and Juno upon Mount Ida*, and the *Death of General Wolfe*, are the most celebrated. After his return, he was chosen member of the royal academy, and professor of painting. He worked seven years on the paintings which adorn the great hall of the society for the encouragement of the arts. In 1773, he published his well-known work, *Inquiry into the real and imaginary Obstructions to the Increase of the Arts in England*. He traces these causes to the Protestant religion, to the political spirit of the English, and to their preference of the useful to the beautiful. While we value his criticism on the beautiful, and his theory of the arts, we must blame the irregularity of his drawings, and his unsociable manners. He died in 1806.

BARRY, John, a distinguished naval officer in the service of the U. States, was born in the county of Wexford, Ire-

land, in 1745. His father, a very respectable farmer, having perceived a strong inclination in him for the sea, placed him on board a merchantman, where he continued for several years. He arrived in America, which he adopted as his country, when only 14 or 15 years old, having previously acquired a good practical education by industrious effort, in conjunction with a strong and active mind. In America, he was not long without occupation, being employed by some of the most respectable merchants of the day, who always spoke of him in terms of high approbation. He continued thus engaged until the rupture between the colonies and the mother country, when he embraced the cause of the former. The reputation which he had acquired for skill and experience procured for him one of the first naval commissions from congress. In February, 1776, he was appointed commander of the brig *Lexington*, of 16 guns, the first continental vessel of war which sailed from the port of Philadelphia. After a successful cruise in her, he was transferred, in the latter part of the same year, to the *Effingham*, one of the three large frigates built in Philadelphia. Being prevented, in the winter of that year, from pursuing his naval operations, by the ice which impeded the navigation of the Delaware, he would not remain inactive, but volunteered his services in the army, where he served, with great honor to himself, as aide-de-camp to general Cadwalader, in the important occurrences near Trenton. When the American vessels of war were lying near Whitehill, whither they had been sent when the city, and the forts of the river, had fallen into the power of the British, commodore Barry conceived the daring plan of annoying the enemy by means of small boats, properly armed, which, being stationed down the river and bay, might intercept supplies, and, in case of danger, take refuge in the creeks. He, accordingly, manned the boats of the frigates, descended the river with muffled oars, under cover of the night, and appeared unexpectedly before the city. He effected his object by intercepting a large stock of provisions, and capturing several vessels laden with military munitions and valuable stores for the British officers. The commodore and his assistants received a public expression of thanks from Washington, on account of his enterprise. After the destruction of his frigate, he was appointed to the command of the *Raleigh*, of 32 guns, which he was

obliged to run on shore, being chased by a large squadron of British vessels of war. He was afterwards named commander of a 74 building in New Hampshire; but, this vessel having been presented by congress to the king of France, he was transferred to the Alliance, a frigate of 36 guns, which was placed under his orders. In February, 1781, he sailed from Boston, where the frigate had been lying, for L'Orient, having on board colonel Laurens and suite, who was sent on an important embassy to the French court. He then proceeded on a cruise, in which he took several valuable prizes, and captured his Britannic majesty's ship of war Atalanta, and her consort, the brig Trepasa, after an engagement of several hours, in which he displayed great gallantry, and was dangerously wounded. December 25, 1781, the Alliance sailed from Boston, with the marquis de La Fayette and count de Noailles on board, who were proceeding to France on public business. After landing them, she left L'Orient on a cruise, and, besides making many prizes, overcame a frigate of equal size with herself, which was rescued, however, by the timely arrival of her two consorts, which had been watching the motions of a large French ship during the action. During the rest of the war, B. served with credit to himself, and benefit to his country, and, after the cessation of hostilities, was appointed to superintend the building of the frigate United States in Philadelphia, which was designed for his command. During the partial maritime war with France, he was actively and constantly employed at sea, and did great service to the commercial interests of the country by protecting its flag from the depredations of the French privateers, which infested the ocean. He retained the command of the United States until she was laid up in ordinary. After a life of usefulness and honor, B. fell a victim to an asthmatic affection, at Philadelphia, September 13, 1803.—This estimable man was above the ordinary stature; his person was graceful and commanding; his whole deportment was marked by dignity, unmixed with ostentation; and his strongly-marked countenance expressed the qualities of his mind and the virtues of his heart.

BARRY (Marie Jeanne Gomart de Vaubernier) countess du, the famous mistress of Louis XV, king of France, daughter of a commissioner of the customs at Vauconleurs, by the name of Gomart de Vaubernier, was born in 1744, and, after the

death of her father, entered the service of a milliner at Paris, afterwards belonged to the establishment of the notorious Gourdan, where she was known by the name of *Mlle. Lange*, and became the mistress of the count du Barry, who built high hopes upon her charms. He managed to make her known to the king (*dont les sens étaient blusés par la débauche*, says an author: *le vieux monarque, accoutumé à rencontrer le respect jusque dans les bras de ses maîtresses, retrouva des jouissances et des désirs près d'une femme d'une espèce nouvelle pour lui. Il l'aima de toute sa faiblesse, et l'empire d'une vile prostituée sur le souverain le plus majestueux et le plus imposant fut fondé par la lubricité*). She soon took the place of the marchioness de Pompadour. The king deemed it necessary to find her a husband, and she fell to the lot of the count du Barry, a brother of the one above mentioned. The countess du Barry was now publicly introduced at court. She soon governed all France; caused the ruin of the duke de Choiseul, whose haughty spirit would not bend before her; promoted the duke d'Aiguillon, and assisted him to take revenge on the parliament, which was, in 1771, driven from Paris, and afterwards entirely suppressed. Yet we ought not to ascribe to her the evils of which she was only the instrument in the hands of intriguing counsellors. She herself loved pleasure more than intrigue. After the death of the king, she was banished to an abbey near Meaux. She afterwards received permission to reside in her beautiful pavilion near Marly. She lived quietly, during the revolution, until Robespierre's dominion. But her riches, and her connexion with the Brissotists, caused her ruin. She was placed at the bar of the revolutionary tribunal, condemned to death, and executed, December 6, 1793. On her way to the scaffold, her prayers for mercy were incessant; her eyes were bathed in tears; she uttered loud shrieks, and implored the compassion of the people. Her cry was still heard at the moment of her execution:—*Monsieur le bourreau, encore un moment*. It has been observed, that, among all the women condemned to death by the revolutionary tribunal, she was the only one who showed excessive fear in her last moments.

BARTHELEMY, Jean Jacques, born, January 20, 1716, at Cassis, near Marseilles in what was formerly Provence, received a good education from the fathers of the oratory at Marseilles, and was about to prepare himself, under the Jesuits, for

holy orders; but, becoming disgusted with his teachers, he declined all offers of clerical promotion, and only accepted the title of *abbé*, in order to show that he belonged to this class. From his youth, he loved the study of the ancient languages, even the most ancient Oriental tongues, and antiquities more particularly. His indefatigable industry and acuteness soon enabled him to communicate to the learned new discoveries in this branch of study, among which the Alphabet of Palmyra, published by him in 1754, holds a principal place. In 1747, he was chosen member of the academy of inscriptions at Paris, after having been associated, on his arrival in Paris (1744), with the inspector of the royal cabinet of medals. About this time, he became acquainted with the count Stainville (afterward the minister Choiseul), who was on the point of departing as ambassador for Rome, and invited B. to accompany him thither. Having been, since 1753, chief inspector of the cabinet of medals, he accepted the offer, and went, in 1764, to Rome. He travelled through Italy, collected antiquities, and occupied himself, after his return, with learned works, and with the arrangement of the cabinet, which had been intrusted to his care, and to which he added a great number of costly and rare medals. Among his works, none are so distinguished for learning and beauty of description as the Travels of the Younger Anacharsis in Greece, on which he had labored 30 years. He himself was modest enough to call this an unwieldy compilation, whilst all the learned men of France and foreign countries received it with the greatest applause. B., in his advanced age, resolved to compose a complete catalogue of the royal cabinet of medals, but was interrupted, in 1788, by the storms of the revolution; during which he remained tranquil, taking no part in the public disturbances. In 1789, he received a place in the *académie Française*. The revolution deprived him of the greatest part of his income; but he bore this loss with calmness. August 20, 1793, he was accused, by a clerk of the national library, of aristocracy, and, September 2, arrested; but he was soon after set at liberty, and readmitted among the number of librarians. This event had the most injurious effects upon his weak health. When the chief librarian of the national library, the notorious Carra, was executed, October 31, 1793, B. received the offer of his place; but he refused it, with the hope of passing his few remaining days in tranquillity.

He died, April 30, 1795, with the reputation of an honest man, and a highly learned and distinguished author. His nephew, François B., born 1750, is a peer of France and an ultra.

BARTHEZ, Paul Joseph, one of the most learned physicians of France in the 18th century, born at Montpellier, December 11, 1734, was admired as a precocious child. After the termination of his studies in 1754, he came to Paris, where the cure of the count of Perigord introduced him to notice. He was received into the society of Barthélemy, Caylus, Henault, Mairan and d'Alembert. Two memoirs, which he presented to the *académie des inscriptions et des belles-lettres*, obtained the first prizes. He took part in the *Journal des Savans*, and in the *Encyclopédie*. Recalled to Montpellier, he founded there a medical school, which acquired a reputation throughout all Europe. He also published there his *Nouveaux Éléments de la Science de l'Homme* (Montpellier, 1778, 2d augm. edit.; Paris, 1806, 2 vols.), which were translated into most of the European languages. But his ambition did not find sufficient food at Montpellier; he therefore returned, in 1780, to Paris, where he was appointed by the king *médecin consultant*, and by the duke of Orleans his first physician. He was a member of almost every learned society. His advice upon important cases was sought for from every quarter. The revolution deprived him of the greatest part of his fortune and places. Napoleon, who understood how to discover merit, brought him forth again, and loaded him, in his advanced age, with dignities. He died October 15, 1806. His name will be remembered, in and out of France, with the same respect as those of Boerhaave, Hoffmann, Sydenham, Cullen and Brown. Among his numerous writings is the one entitled *Nouvelle Mécanique des Mouvemens de l'Homme et des Animaux*. B. was a doctor of laws, and counsellor of the *cour des aides*.

BARTHOLOMEW (*son of Tolmai*), the apostle, is probably the same person as *Nathanael*, mentioned, in the Gospel of St. John, as an upright Israelite, and one of the first disciples of Jesus. The derivation of his name and descent from the family of the Ptolemies, is fabulous. He is said to have taught Christianity in the south of Arabia, and to have carried there the Gospel of St. Matthew, in the Hebrew language, according to Eusebius. Chrysostom mentions, that he preached in Armenia and Natolia, and a later writer of

legends says, that he suffered crucifixion at Albania pyla (now *Derbent*, in Persia). The ancient church had an apocryphal gospel bearing his name, of which nothing has been preserved.

BARTHOLOMEW'S HOSPITAL (St.); one of the greatest hospitals of London; formerly the priory of St. Bartholomew, and made a hospital by Henry VIII. It can contain 820 patients.

BARTHOLOMEW, St.; one of the Caribbee islands, in the West Indies, belonging to Sweden, about 24 miles in circumference; lon. 63° 0' W.; lat. 17° 34' N.; pop. about 8,000. It produces tobacco, sugar, cotton, indigo and cassava, with some excellent woods and limestone. All the fresh water which they can procure is saved in cisterns. The island is encompassed by formidable rocks, which render it dangerous of access to shipping. Its chief products for exportation are drugs and lignum-vitæ. The only town is called *Gustavia*, or *St. Bartholomew*, and contains about 4000 inhabitants; and the only harbor is La Carenage, near *Gustavia*.—There are two other islands of the same name in the South Pacific ocean. One lies in lon. 167° 23' E., lat. 15° 41' S.; the other in lon. 221° 25' W., lat. 8° 13' S.

BARTHOLOMEW'S DAY (St.); a feast of the church, celebrated, August 24, in honor of St. Bartholomew. The horrid slaughter of the Huguenots, in France, took place on St. Bartholomew's day, under the reign of Charles IX, in 1572. The causes which produced it may be found in the articles *Huguenots*, *Guise*, and *Condé*. After the death of Francis II, Catharine of Medicis (q. v.) became regent in the place of her son, Charles IX, then only 10 years old, and was compelled, in spite of the opposition of the Guises, to issue an edict of toleration in favor of the Protestants. The party of the Guises now persuaded the nation, that the Catholic religion was in the greatest danger. The Huguenots were treated in the most cruel manner; prince Condé took up arms; the Guises had recourse to the Spaniards, Condé to the English, for assistance. Both parties were guilty of the most atrocious cruelties, but finally concluded peace. The queen-mother caused the king, who had entered his 14th year, to be declared of age, that she might govern more absolutely under his name. Duke Francis de Guise had been assassinated, by a Huguenot, at the siege of Orleans; but his spirit continued in his family, which considered the admiral

Coligny as the author of his murder. The Huguenots soon found, that the queen-mother still hated them; and Condé and Coligny, therefore, kept themselves on their guard. The king (see *Charles IX*) had been persuaded, that the Huguenots had designs on his life, and had conceived an implacable hatred against them. Meanwhile the court endeavored to gain time, in order to seize the persons of the prince and the admiral by stratagem, but was disappointed, and hostilities were renewed with more violence than ever. In the battle of Jarnac, 1569, Condé was made prisoner, and shot by the captain de Montesquieu. Coligny collected the remains of the routed army; the young prince Henry de Bearn (afterwards Henry IV, king of Navarre and France), the head of the Protestant party after the death of Condé, was appointed commander-in-chief, and Coligny commanded in the name of the prince Henry de Condé, who swore to revenge the murder of his father. But he was destitute of means, and was unsuccessful. The advantageous offers of peace at St. Germain-en-Laye (August 8, 1570) blinded the chiefs of the Huguenots, particularly the admiral Coligny who was wearied with civil war. The king appeared to have entirely disengaged himself from the influence of the Guises and his mother: he invited the old Coligny, the support of the Huguenots, to his court, and honored him as a father. The most artful means were employed to increase this delusion. The sister of the king was married to the prince de Bearn (Aug. 18, 1572), in order to allure the most distinguished Huguenots to Paris. Some of his friends endeavored to dissuade the admiral from this visit; but he could not be convinced that the king would command an assassination of the Protestants throughout his kingdom. Aug. 22, a shot from a window wounded the admiral. The king hastened to visit him, and swore to punish the author of the villany; but, on the same day, he was induced, by his mother, to believe that the admiral had designs on his life. "God's death!" he exclaimed; "kill the admiral; and not only him, but all the Huguenots; let none remain to disturb us!" The following night, Catharine held the bloody council, which fixed the execution for the night of St. Bartholomew, Aug. 24, 1572. After the assassination of Coligny (q. v.), a bell from the tower of the royal palace, at midnight, gave to the assembled companies of burghers the signal for the general mas-

sacre of the Huguenots. The prince of Condé and the king of Navarre saved their lives by going to mass, and pretending to embrace the Catholic religion. By the king's orders, the massacre was extended through the whole kingdom; and if, in some provinces, the officers had honor and humanity enough to disobey the orders to butcher their innocent fellow-citizens, yet instruments were always found to continue the massacre. This horrible slaughter continued for 30 days, in almost all the provinces: the victims are calculated at 30,000. At Rome, the cannons were discharged, the pope ordered a jubilee and a procession to the church of St. Louis, and caused *Te Deum* to be chanted. Those of the Huguenots who escaped fled into the mountains and to Rochelle. The duke of Anjou laid siege to that city, but, during the siege, received the news, that the Poles had elected him their king. He concluded a treaty, July 6, 1573, and the king granted to the Huguenots the exercise of their religion in certain towns. The court gained nothing by the massacre of St. Bartholomew (called, in French *ultra papiers*, in 1824, *une rigueur salutaire*). The Huguenots were afterwards more on their guard, and armed themselves against new attacks. (See *Hist. de la Ste. Barthélemy d'après les Chroniques, les Mémoires et les Manuscrits du Temps*, Paris, 1826. The massacre of St. Bartholomew is, in this work, attributed to Catharine of Medicis. See, also, Schiller's *History of the Troubles in France, until the Death of Charles IX*, complete works, vol. xvi.)

BARTLETT, Josiah, M. D., governor of New Hampshire, was born in Amesbury, Massachusetts, in 1729. He early made considerable proficiency in the Latin and Greek languages, and, at the age of 16, commenced the study of medicine.—He commenced the practice of his profession in 1750, at Kingston, in New Hampshire, at the age of 21. Two years afterwards, he was near losing his life by a fever, in consequence of the injudicious management of his physician, who, at the approach of a crisis, had almost exhausted his strength by a warm and stimulating regimen, and seclusion from the air. But the patient procured, during the night, a quart of cider, which he took by half a teacup-full at a time: in the morning, a copious perspiration ensued, and the fever was effectually checked. Ever after this event, B. was a strict observer of nature in all diseases, rejecting all arbitrary medical rules. He soon acquired popularity,

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and an extensive practice. B. established his fame by his manner of treating the throat distemper (*angina maligna*), which had originated in Kingston, and carried off great numbers, principally children. The physicians, considering it to be of an inflammatory nature, had adopted the depleting and antiphlogistic course of practice, which had been almost invariably followed by death. When the distemper made its appearance again, in 1754, B. believed it to be of a highly putrid character, and, in consequence, determined to employ antiseptic remedies, and pursued this treatment with general success.—He was appointed, by governor John Wentworth, to the command of a regiment of militia; and, in 1765, was chosen representative of the town of Kingston, in the provincial legislature, where he united with a small minority in opposition to what they thought unjust violations of right. In 1774, he was elected a delegate to the general congress, who were to meet at Philadelphia, but declined the office on account of the recent loss of his house by fire. In 1775, the governor deprived him of his commission in the army, and also of that of justice of the peace, which he had formerly conferred on him with the hope of procuring his support; but, some months after, B. received command of a regiment from the provincial congress. Being soon chosen again a delegate to the continental congress, he was the first who voted for, and the first, after the president, who signed, the declaration of independence, his name being first called, as representative of the most easterly province. He performed his duties, which were extremely arduous and fatiguing, whilst in Congress, with zeal and fidelity.—In 1780, he was appointed a judge of the superior court of New Hampshire, in which office he continued until his elevation to the chief-justiceship, in 1790. He was an active member of the convention for adopting the confederation, in 1788. In 1790, he became president of New Hampshire, and, in 1793, was chosen the first governor of the state under the new form of government. In all these offices, his duties were ably and faithfully discharged. In 1794, he retired from the chief magistracy of the state, and from all public employment. He died May 19, 1795, leaving the reputation of ability and integrity.

BARTOLOZZI, Francesco; a distinguished engraver, born at Florence, in 1730, where he learned the art of drawing from Hugfort, Feretti and others. In Venice,

in Florence and Milan, he etched several pieces on sacred subjects, and then went to London, where he received great encouragement, and accommodated himself entirely to the national taste, so as even to work in the popular red dotted manner. His pieces were so universally sought for, that a complete collection of them was valued at £1000. He was elected a member of the royal academy of arts, in London. After 40 years' residence in London, he went to Lisbon, to engrave, on copper, the portrait of the regent, where he received, in 1807, the order of Christ. He died there in April, 1815.—With accuracy of design, he united great delicacy of execution. One of his most exquisite engravings is the *Death of Lord Chatham*, after Copley; a good copy of which was, many years ago, sold for \$112. One of his most charming pieces is the *Lady and Child*. His works, among which are imitations in etching of drawings of the great masters, amount to more than 2000. An English gentleman, Mark Sykes, was in possession of all of B.'s engravings, including the rough sketches and proofs. They cost him 5000 louis-d'ors, and were sold, with his library and collection of manuscripts, in London, 1824.

BARTON, Benjamin S., M. D., professor in the university of Pennsylvania, was born at Lancaster, Pennsylvania, 1766. His mother was the sister of the celebrated Rittenhouse. The death of his parents occasioned his removal, in 1782, to the family of a brother in Philadelphia, where he spent several years in the study of literature, the sciences, and medicine. In 1786, he went to Great Britain, and prosecuted his medical studies at Edinburgh and London. He afterwards visited Göttingen, and there obtained the degree of doctor in medicine. On returning to Philadelphia, in 1789, he established himself as a physician in that city, and his superior talents and education soon procured him extensive employment. Shortly after, he was elected a member of the American philosophical society, in that city, and contributed to their transactions many papers on various subjects in natural science. He was also, in 1789, appointed professor of natural history and botany in the college of Philadelphia, and continued in the office on the incorporation of the college with the university, in 1791. He was appointed professor of *materia medica*, in 1795, on the resignation of doctor Griffiths, and, on the death of doctor Rush, succeeded him in the department of the theory and practice of

medicine. He died Dec. 19, 1815.—B. was highly distinguished by his talents and professional attainments, and contributed much, by his lectures and writings, to the progress of natural science in the U. States. His chief publication is *Elements of Zoology and Botany*. In 1805, he commenced the *Medical and Physical Journal*, to which he contributed many valuable articles.

BARTON, Elizabeth; a country girl of Aldington, in Kent (therefore called the *holy maid of Kent*), of whom English Protestants give this account: She was used as an instrument, by the Catholics and adherents of queen Catharine, to excite the English nation against the proposed divorce of Henry VIII from his first wife, and the apprehended separation of the English church from Rome, with which the king then threatened the pope. Her delirium, in a violent nervous illness, was made use of by the parson of Aldington, Richard Masters, and by a canon of Canterbury named Bocking, to persuade her that she was a prophetess inspired by God, and destined to prevent this undertaking of the king. During her paroxysms, she cried out against this divorce, and against the prevailing sins and heresies, and brought the image of the Virgin at Aldington, where she was cured, according to her own prophecy, into great respect, much to the profit of the parson. Bocking, already suspected of an illicit intercourse with her, persuaded her to become a nun; and the approbation of archbishop Warham of Canterbury and bishop Fisher of Rochester encouraged her to continue her revelations, which she pretended were communicated to her by a letter from heaven. By the prophecy, that Henry, if he persisted in his purpose of divorce and second marriage, would not be king for one month longer, and would die a shameful death, she excited many monks and nuns to violence against the king. Her revelations, published and distributed by the monk Deering, produced such a fermentation among the people, that Henry ordered the apprehension and examination of Elizabeth and her accomplices before the star-chamber. After they had there confessed the imposture, they were condemned to make a public confession and to imprisonment; and, when it was found that the party of the queen were laboring to make them retract their confession, they were adjudged guilty of high treason, for a conspiracy against the king, and executed, April 30, 1534. Warham was already

dead; Fisher was imprisoned, and the former chancellor, sir Thomas Moore, being suspected of participation in the scheme, underwent an examination, but was soon released.

BARTRAM, John, one of the most distinguished of American botanists, was born in Chester county, Pennsylvania, in 1701. His grandfather, of the same name, accompanied William Penn to this country, in 1682.—B. was a simple farmer. He cultivated the ground for subsistence, while he indulged an insatiable appetite for botany. He was self-taught in that science, and in the rudiments of the learned languages, and medicine and surgery. So great, in the end, was his proficiency in his favorite pursuit, that Linæus pronounced him "the greatest natural botanist in the world." He made excursions, in the intervals of agricultural labor, to Florida and Canada, herboring with intense zeal and delight. At the age of 70, he performed a journey to East Florida, to explore its natural productions; at a period, too, when the toils and dangers of such an expedition far exceeded those of any similar one which could be undertaken, at the present time, within the limits of the U. States. He first formed a botanic garden in America, for the cultivation of American plants, as well as exotics. This garden, which is situated on the banks of the Schuylkill, a few miles from Philadelphia, still bears his name. He contributed much to the gardens of Europe, and corresponded with the most distinguished naturalists of that quarter of the globe. Several foreign societies and academies bestowed their honors upon him, and published communications from him in their transactions. B. died in 1777, in the 76th year of his age. At the time of his death, he held the office of American botanist to George III of England. He was amiable and charitable, and of the strictest probity and temperance.

BARTRAM, William, fourth son of John B., was born, 1739, at the botanic garden, Kingessing, Pennsylvania. At the age of 16 years, he was placed with a respectable merchant of Philadelphia, with whom he continued six years; after which he went to North Carolina, with a view of doing business there as a merchant; but, being ardently attached to the study of botany, he relinquished his mercantile pursuits, and accompanied his father in a journey into East Florida, to explore the natural productions of that country; after which, he settled on the river St. John's, in this region, and finally returned, about the year

1771, to his father's residence. In 1773, at the request of doctor Fothergill, of London, he embarked for Charleston, to examine the natural productions of the Floridas, and the western parts of Carolina and Georgia, chiefly in the vegetable kingdom. In this employment he was engaged nearly five years, and made numerous contributions to the natural history of the country through which he travelled. His collections and drawings were forwarded to doctor Fothergill; and, about the year 1790, he published an account of his travels and discoveries, in 1 vol. 8vo., with an account of the manners and customs of the Creeks, Cherokees and Choctaws. This work soon acquired extensive popularity, and is still frequently consulted.—After his return from his travels, he devoted himself to science, and, in 1782, was elected professor of botany in the university of Pennsylvania, which post he declined, in consequence of the state of his health. In 1786, he was elected a member of the American philosophical society, and was a member of several other learned societies in Europe and America. We are indebted to him for the knowledge of many curious and beautiful plants peculiar to North America, and for the most complete and correct table of American ornithology, before the work of Wilson, who was assisted by him in the commencement of his American Ornithology. He wrote an article on the natural history of a plant a few minutes before his death, which happened suddenly, by the rupture of a blood-vessel in the lungs, July 22, 1823, in the 85th year of his age.

BARYTES; the name of one of the earths; from *βαρύς*, *heavy*, on account of the great weight of its acid combinations. It is procured either from the native sulphate of barytes, by exposing its powder to a red heat with charcoal, and by forming from the resulting sulphuret a nitrate, which is decomposed by heat; or from the native carbonate, by dissolving it in nitric acid, and, in like manner, subjecting it to heat. Thus obtained, barytes has a specific gravity of 4, is of a gray color, has a caustic taste, and slakes on exposure to the air, like lime, falling to powder from the absorption of water. It is soluble in 25 parts at 60°, and in the proportion of nearly half its weight at 212°. The solution, on cooling, affords prismatic crystals. Its watery solution possesses, distinctly, alkaline properties, changing the vegetable blues to green, and acquiring a film upon its surface, when exposed to the air,

from the absorption of carbonic acid. It operates as a virulent poison when taken into the stomach. To the flame of alcohol it imparts a yellow color, which, together with its great solubility in water, serves to distinguish it from the other earths. It is useful in chemical analysis, in consequence of its property of uniting by fusion with several of the earths and metallic oxydes, and rendering them soluble in acids or water.—Barytes has been decomposed by the agency of galvanism, and ascertained to be the oxyde of a peculiar metal, to which sir Humphrey Davy has given the name of *barium*. It has a white color, with a metallic lustre, resembling that of silver. Exposed to the air, or thrown into water, it absorbs oxygen, and is converted into barytes.—Barytes combines with the acids, and forms a variety of salts, two of which, the carbonate and the sulphate, are found abundantly in nature. The first of these is called, in mineralogy, *Witherite*, from Dr. Withering, its discoverer. It is commonly fibrous or bladed in its structure, occasionally including small cavities lined with minute crystals. It is whitish, translucent, and glistening. Specific gravity, 4.3. It is composed of barytes, 78, and carbonic acid, 22. Like all the other salts of barytes (with one exception), the carbonate is a virulent poison, and has often proved fatal to domestic fowls and animals who have accidentally swallowed it, about the mines where it occurs. Its principal localities are in the north of England, where it is found in lead mines: it also occurs in Stiria, Salzburg and Siberia. It is used to obtain the pure barytes, and those salts of this earth which are employed as chemical tests, and for the purposes of scientific illustration.—The sulphate of barytes, called, in mineralogy, *heavy-spar*, is found abundantly in almost every country, usually accompanying galena, or common lead ore, of which it frequently forms the gangue. It is often beautifully crystallized under a variety of forms, derived from a right rhombic prism of $101^{\circ} 42'$, and $78^{\circ} 18'$, but is more generally lamellar or compact. It presents numerous colors, of which white is the most frequent. It is translucent, and sometimes transparent, capable of being scratched by the knife, and of a specific gravity of 4.7. Like the artificial sulphate of barytes, it is insoluble, and is the only salt of this earth which is not poisonous. It consists of 67 parts barytes and 33 sulphuric acid. It is employed, though less extensively, for the same purposes as the

carbonate, and was formerly used, by Mr. Wedgewood, in the manufacture of his beautiful jasper ware.—A fibrous variety of heavy-spar, called *Bolognian stone*, and which occurs, imbedded in small nodular masses, in a marl near Bologna, has the remarkable property of becoming phosphorescent by calcination.—The artificial sulphate of barytes, formed by adding sulphuric acid to the carbonate of barytes, is employed for the purpose of painting in water-colors, and is the most beautiful white now in use. It is known by the name of *permanent white*. The same substance is much valued for marking bottles in chemical laboratories, where the acid vapors destroy common ink, and for labelling articles kept in cellars and moist places. In order to be applied, it is mixed up with spirits of turpentine and linseed oil, to the consistence of common paint, when it is laid on with a brush. If a black marking material is preferred, this may be rendered so by the addition of a little lampblack.—The *nitrate of barytes* is formed by dissolving the native carbonate in diluted nitric acid, and crystallizes on evaporation. It is soluble in 10 or 12 parts of water, at 60° , and in 3 or 4 parts at 212° .—The *muriate of barytes*, in like manner, is produced by submitting the carbonate to the action of dilute muriatic acid. It is much more soluble than the nitrate. Solutions of both these salts are of great importance in analytical processes, for the detection of sulphuric acid: the barytes forming, with that acid, an insoluble precipitate, while the nitric or muriatic acid neutralizes the base. The muriate of barytes is employed with advantage, as a medicine, in the treatment of scrofulous diseases, though, from its poisonous nature, great caution is requisite in its administration.

BASALT. (See *Trap-Rocks*.)

BASCULE SYSTEM; the wavering system (an expression applied to the conduct of the French ministers since the restoration of the Bourbons); the opposite of a consistent system of administration, that regards only the general welfare. The ministers of France, until the year 1822, were often censured by the liberal representatives and writers, on account of their indecision, and underwent the same reproaches from the party of ultra-royalists. In December, 1821, the ultras of both parties united, in the chamber of deputies, against the wavering ministers.

BASE, in architecture, see *Architecture*; in chemistry, see *Chemistry*.

Base, or *Basis*; a term in tactics, first

introduced into military language by Henry von Bülow, who labored to reduce war to mathematical principles, and to give more certain rules to the commander. By *basis*, he understands a tract of country well protected by fortresses, and from which the operations of the army proceed. The line upon which these operations are executed he calls *line of operation*; the fortresses from which the operations begin, the *subject*; the point to be first carried, the *object*. Thus, in an offensive war of France against the south of Germany, supposing Prussia and Switzerland to be neutral, the Rhine, from Basle to Carlsruhe, would be the basis; Strasburg, the subject; Ulm or Ratisbon, the object; and the road from Strasburg to these places, the line of operation. As Bülow thought magazines indispensable, the security of the line of operation against all attacks from the side seemed to him likewise indispensable, and he laid down the principle, that both the lines, drawn from the ends of the basis to the object, ought to meet there in a right or an obtuse angle, the last being preferable. The novelty and importance of the subject, and the severity with which Bülow criticised his opponents, gave rise to a violent dispute. In 1814, the subject was discussed in the *Fragmente aus den Grundsätzen der Strategie, erläutert durch die Darstellung des Feldzugs in Deutschland, 1796*; a most valuable work, composed by the archduke Charles of Austria. He adopts many of the ideas of Bülow, and rejects others; and, on the whole, establishes the theory of the basis on such grounds, that every unprejudiced military man will be disposed to admit it. He also maintains, that the basis (according to his definition, a straight line, which unites several points at which the stores of the army are collected) must be covered. It ought, since the operation on one road would be dangerous, to include, if possible, several fortified places, connected by easy communications, and to run parallel with the basis of the enemy. If the troops have moved too far from the basis, a new one should be formed. The archduke explains his principles on a supposed theatre of war in the south of Germany, and by the war which actually took place in that country in 1796, in which he distinguished himself so much. The last wars in Europe have shown the correctness of this theory, which has been acted on, more or less, by generals in all ages, and the neglect of which has generally been attended with suffering and defeat. Thus

the Prussians, in 1792, advanced, without paying regard to the fortresses of Metz, Thionville, Landau, &c., on one line of operation, and were nearly destroyed at Valmy; and, for the same reason, the army of Jourdan, in 1796, was almost entirely ruined, after some unfortunate engagements. So the army of Napoleon perished in Russia, because he had not formed, before advancing to Moscow, a new basis on the Dnieper. The war in Spain, also, westward of Madrid, consisted only of detached movements of large columns, which were ineffectual, on account of the want of a proper communication. The allies also were enabled to march from all sides against Napoleon, at Leipsic, in consequence of his having neglected to form a basis at Dresden; and they themselves were several times exposed to the greatest danger in France, from a similar neglect, when nothing but the boldness of Blücher, and the spirit of the troops, saved them. It may be objected, that Napoleon owed his greatest glory to campaigns in which he entirely disregarded the basis; as those of 1805 and 1809, against Austria, and his previous campaigns in Italy; but one single great and decisive battle lost would have punished severely his neglect of this principle. And, moreover, there is one rule still more important than those of tactics—to act according to the circumstances and the character of the enemy, and to bring on decisive results by energetic measures, rather than to moulder away in inaction. We may remark, also, that the conquest of the capital of a large state is always a most important object, and should be aimed at as speedily as the rules of tactics will allow.

BASEDOW, John Bernard; often called, by himself, *Bernard of Northalbingen*; born Sept. 11, 1723, died July 25, 1790; one of the most famous of the German teachers, who, in the latter half of the last century, wrote so much on education. He had in Dessau an institution for education, called *Philanthropinon*, which the prince of this territory favored. The chief features of B.'s system are the cosmopolitan character, which he endeavored to instil into his pupils, and the full development of the faculties of the young, at which he aspired, in pursuance of the notions of Locke and Rousseau. With Salzmann, Campe, &c., he established some good institutions, and particularly deserves credit on account of his efforts for the education of the lower classes. He has written much.

BASHAW, BASHA. (See *Pacha*.)

BASHEE ISLANDS; seven islands in the Chinese sea. Three of them are large, and four of them inhabited. The productions are plantains, bananas, pine-apples, sugar-cane, potatoes, yams, and cotton. Their quadrupeds are goats and hogs. The five principal ones are *Orange*, *Grafton*, *Monmouth*, *isle of Goats*, and *Bashee* or *Bachi*. They are S. of Formosa. Their situation is in lon. 122° E., lat. 20° 28' to 20° 55' N. Two rocks, towards the N., ought, according to Perouse, to be called islets; the least of them being half a league in circumference, and, though not woody, covered with grass. These are situated in lat. 21° 9' N.

BASHKIRS, or **BASHKEERS**, are probably of Nogay origin, and sprung from a tribe whom the Bulgarians admitted among themselves; at least, their country is a part of the ancient Bulgaria. They formerly roamed about, under their own princes, in Southern Siberia. To avoid the Siberian khans, they settled in their present territory, extended themselves along the Wolga and the Ural, and submitted to the khan of Kasan. At the time when this state was overthrown by Ivan II, they voluntarily took refuge under the Russian sceptre; but their frequent revolts have prevented their increase, and kept them in a weak condition. In 1770, they consisted of 27,000 families, residing in the governments of Ufa and Perm. They are Mohammedans, mostly armed with bows and arrows, and lances, and live by hunting, breeding of cattle, and keeping of bees. They prepare, from fermented mare's and camel's milk, an intoxicating beverage, *kumiss*, which is their favorite drink. They are little civilized.

BASIL, St., called the *Great*, to distinguish him from other patriarchs of the same name, was born in 329, and made, in 370, bishop of Cæsarea, in Cappadocia, where he died, in 379. He is the most distinguished ecclesiastic among the Grecian patriarchs. His efforts for the regulation of clerical discipline, of the divine service, and of the standing of the clergy; the number of his sermons; the success of his mild treatment of the Arians; and, above all, his endeavors for the promotion of monastic life, for which he prepared vows and rules, observed by himself, and still remaining in force, prove the merits of this holy man. The Greek church honors him as one of its most illustrious patron saints, and celebrates his festival Jan. 1. His followers are widely extended; there are even some in America.

They lead an ascetic life. The vows of obedience, chastity and poverty, framed by St. Basil, are the rules of all the orders of Christendom, although he is particularly the father of the eastern, as St. Benedict is the patriarch of the western orders.

BASIL, town of. (See *Basle*.)

BASILICA; a royal abode. In the first centuries of Rome, the basilica were splendid public buildings, of an oblong shape, and four-cornered, commonly adorned with Corinthian columns and statues, where the citizens collected to consult for their common welfare, the merchants exposed their wares, the young orators exercised themselves in declamation, &c. Constantine the Great gave some basilica to the Christians, in Rome, for their worship. Thence it happened, that the first Christian churches obtained the name of *basilica*, and afterwards, when new churches were built, they preserved the shape of the ancient basilica.

BASILIDES. (See *Gnosis*.)

BASILISK. The basilisk of the ancients, according to Pliny (lib. 8, cap. 21), was a kind of serpent, found in the African deserts, named βασιλiscos, or *little king*, because its body was marked with bright spots, and those on the head had the appearance of a crown or diadem. It had a very pointed head, with fiery eyes, and was of a dark color, verging to blackness. All other snakes were said to fly from the sound of its hissing; and, instead of trailing along like other serpents, the basilisk raised its body nearly erect, and, as it passed along, killed the herbs and fruits by its touch, and even by its breath! Yet this monster was destroyed by weasels. If these fables had reference to any real animal, it is probable that it was a species somewhat similar to the *cobra da capello*, or the asp viper. The *cobra da capello* has a mark on the back of its head, though more like a pair of spectacles than a crown: both it and the asp are accustomed to erect a very considerable part of the body, though not to move forward in this way. It is highly probable that the animal was merely a creature of fiction.—The name of *basilisk* was arbitrarily applied, by Seba, Linné and subsequent naturalists, to a genus of saurian or lizard-like reptiles, distinguished by trenchant crests, supported by long, spinous processes of the vertebrae, extending along the back, or at least upon a part of the tail. These crests are scaly, like the rest of the skin. Two species of basilisk are known—the hooded and the Amboyna basilisks. These

animals live in or near fresh water, and feed on leaves, grain, insects, &c. The last-named species is found four feet long. Its flesh is edible.

BASKERVILLE, John; an English artist, deserving of notice for his improvements in printing and type-founding. He was born at Wolverley, in Worcestershire, in 1706, and, inheriting a small estate, was brought up to no profession. He, however, acquired a particular skill in penmanship and carving letters on stone; and, at the age of 20, he settled at Birmingham as a writing-master. He subsequently engaged in the manufacture of japanned works; and, in 1750, commenced his labors in the branch of art which acquired for him so much celebrity. His first great performance, as a printer, was an edition of Virgil, in royal 4to., 1756, which was followed by many of the Latin classics, and some English ones, in 4to. and smaller sizes. The beauty of his typographical productions was superior to any thing which had previously appeared from an English press; and when it is considered that the paper and ink, as well as the types and workmanship, were the fruits of one man's skill and ingenuity, it must be admitted that he possessed great merit. He died in 1775; and his types and matrices were afterwards sold at Paris, for £3700, to Beaumarchais, who printed with them, at Kehl, a superb edition of Voltaire.—B. was an enemy of all outward forms of divine service, which he declared to be mere superstition. He ordered, in his will, that his body should not be buried in a burying-ground. He was a kind and honest man, though of a stern exterior.

BASLE, BALE, or BASIL; the largest city of Switzerland, capital of the canton of the same name, which contains 47,500 inhabitants of the reformed religion, on 275 square miles, and furnishes 409 troops to the Swiss confederacy. The city lies in a beautiful country, in lon. 7° 31' E., and lat. 47° 40' N.; is, in general, well built; has 2119 houses, and 16,400 inhabitants, and is divided by the Rhine into the greater and lesser towns, which are united by a bridge 730 feet long. From the remotest times, an enmity has existed between the inhabitants of the two parts, which is not yet entirely eradicated. B. was formerly a free imperial city, but joined the Swiss confederacy in 1501. Œcolompadius, Gryneus, Buxtorf, Wetstein, Hermann, the Bernouillis and Euler were born in B. Erasmus also lived there several years, and lies buried in the cathe-

dral. Among the institutions of the city are, the university, founded in 1459, with an excellent library; a cabinet of medals; 15 collections of paintings; a seminary for missionaries; the German Bible society, which prints stereotype Bibles, and distributes several hundred copies of every edition to the poor; several other remarkable institutions, and flourishing manufactories. It was formerly a peculiarity of B. that the clocks were an hour in advance of those of other places; and the streets of the city were not lighted until March, 1826. The administration of the city is in the hands of a large council of 280 members, from which the smaller council is chosen, consisting of 60 persons. The trade of B. is extensive, principally in silk ribbons; also silk stuffs, cotton, paper, linen, and gloves. The bleacheries and the dye-houses are also very important. In recent times, the university of B. has excited particular attention, since several famous professors, who were proscribed in Germany on account of their political opinions, as de Wette, Snell, Oken and others, found a reception there. (Concerning the battle at St. James, 1444, see *Switzerland*.)

Basle, treaties of peace at, April 5 and July 22, 1795. The former was signed by the Prussian ambassador, afterwards chancellor of state, baron Hardenberg (q. v.); the latter by the Spanish ambassador, marquis D. Domingo d'Yriarte; and both by the minister plenipotentiary of the French republic in Switzerland, the citizen Barthélemy. By these treaties, Prussia and Spain separated themselves from the coalition against France, and acknowledged the republic. The republic retained the Prussian provinces on the left bank of the Rhine until the general peace, and accepted the mediation of Prussia when any German princes wished to conclude separate treaties of peace with it. The secret articles of this peace are not yet made known; we are only acquainted with the treaty of B., May 17, 1795, which confirmed the neutrality of northern Germany. The landgrave of Hesse-Cassel afterwards concluded a treaty with the French republic, at B., Aug. 28, 1795, by which the latter retained possession of the territories of Hesse-Cassel on the left bank of the Rhine until the general peace. By the peace of B., all the conquests of the republican army beyond the Pyrenees were restored to Spain, in exchange for which it ceded to France the Spanish part of the island of St. Domingo. The Spanish prime minister, D. Eman. Godoy, duke

of Alcudia, received, as a reward for this treaty of peace, the title of *prince of peace*.

Basle, council of. This council was announced at the council of Constance, and convoked by pope Martin V, and his successor, Eugenius IV. It commenced its sittings, Dec. 14, 1431, under the presidency of the cardinal legate Julianus Cæsariani of St. Angelo. The objects of its deliberations were to extirpate heresies (that of the Hussites in particular), to unite all Christian nations under the Catholic church, to put a stop to wars between Christian princes, and to reform the church. But its first steps towards a peaceable reconciliation with the Hussites, against whom Julianus had unsuccessfully published a crusade, were displeasing to the pope, who authorized the cardinal legate to dissolve the council. That body opposed the pretensions of the pope, with severe animadversions on his deceitful conduct, and his neglect of the welfare of the church, and, notwithstanding his repeated orders to remove to Italy, continued its deliberations under the protection of the emperor Sigismund, of the German princes, and of France. In order to secure itself against the attacks of Eugenius IV, it re-enacted the decrees of the council of Constance concerning the power of a general council (in matters of faith, of schism, and of reformation) to command the pope, as well as all Christendom, and to punish the disobedience of the clergy, and even of the pope, by virtue of its judicial character as the representative of the universal church. It likewise pronounced all the doings and remonstrances of the pope against its proceedings of no force, and began a formal process against him, after he had issued a bull for its dissolution; appointed him, term after term, to appear before its tribunal, and exercised, as much as possible, the papal prerogatives in France and Germany. Meanwhile, it concluded, in the name of the church, a peace with the Hussites (whose deputies appeared, Jan. 6, 1433, with 300 horse, in Basle), by which the use of the cup in the communion was granted to them. This peace was ratified, Nov. 20, 1433, by the Calixtines, the most powerful, and finally prevailing party of the Hussites. The council deviated on this point, indeed, from the decrees of the council of Constance, but was obliged so to do, in order to assist its most faithful protector, the emperor Sigismund, to the acquisition of Bohemia by this compromise with the

Hussites, who were not to be subdued by force. The emperor, in return, effected the reconciliation of the council with Eugenius IV, who, urged by an insurrection in the papal territory, and by the fear of losing all authority in Germany and France, solemnly confirmed its decrees in a bull, dictated by the council, and accepted at the 16th session (Feb. 5, 1434). Proud of this victory over the pope, it attempted to interfere in the quarrels of the German princes; but was reminded by Sigismund, who protested against its intermeddling in the affairs of the crown, of its proper point—the reformation of the church. Towards the limitation of the power of the pope, in concordance with the ancient constitution of the church, it had already made an important step in the 12th session (July 14, 1434), by depriving him of the disposal of the prebends of cathedral and collegiate churches, which had been obtained by his predecessors; by restoring to the chapters the free election of their officers, and by obliging the pope to confirm them gratuitously. It proceeded to the reformation of the clergy, by ordaining that the clergymen who maintained concubines, and the prelates who received money for permitting it, should be punished; that the excommunicated should not incur the penalties of their sentence before its publication; that interdicts should never be granted at the request of single individuals, and that repeated appeals should not be allowed on account of their complaints (20th session, Jan. 22, 1436); that the *annates*, the sums paid for the *pallia*, &c. should be regarded as simoniacal, and should not, under any pretext, be demanded or paid in future; that the divine service, the mass and the canonical hours should be regularly observed by the clergy of each class; that disturbances of public worship should be prevented by a good ecclesiastical police; that the feast of fools, and all irreverent celebrations customary in the church about Christmas, should be abolished (21st session, June 9, 1435). In the 23d session (March 25, 1436), the form of election, the confession of faith, and the official oath of each pope, by which he bound himself to obey the decrees of the council, and the annual repetition of the same, were provided for; all preferment of the relations of a pope was forbidden, and the college of cardinals was limited to 24 prelates and doctors of all nations, who should be elected by the free votes of the college, should be entitled to half of the revenues of the

states of the church, should watch over the pope, and always sign his bulls. They granted him only the right to dispose of the prebends belonging to the diocese of Rome, and abolished the investiture of church preferments in reversion. The French clergy in vain endeavored to accomplish these salutary measures, to which the pope was constantly opposed. General councils had always been an object of aversion to the popes, and often been prevented by them from assembling, on account of their limitations of the papal power; and the proceedings of the council of Basle must have exasperated, to the highest degree, an obstinate man, like Eugenius IV. He continually remonstrated with the sovereigns against the decrees of the council, and made active preparations for uniting the oppressed Greeks with the Roman church, in order to effect its dissolution. The Greeks, not being acquainted with this dispute, had addressed the pope and the council at the same time. Each endeavored to snatch the glory of effecting this union from the hands of the other; both sent galleys to bring the deputies of the Greeks to the place of negotiation, and each appointed different places for this purpose, according to the different interests of each. But the galleys of the council, detained through the intrigues of the papal agents, did not succeed; and the papal vessels conveyed the Greeks to Ferrara. The papal legate at Basle, the archbishop of Tarentum, published an order in the name of the council, to which he had clandestinely attached its seal. By this order, in compliance with the wish of Eugenius, Udina or Florence was appointed for the place of negotiation. This fraud broke all the ties which had hitherto restrained the council from further attacks upon the pope. In the 26th session (Jan. 31, 1437), it again summoned him to appear, on account of his disobedience of its decrees, declared him guilty of contumacy, and, after Eugenius had opened his counter-synod at Ferrara, decreed his suspension from the papal chair, in the 31st session (Jan. 24, 1438). In the same session, it forbade appeal to Rome, without resort to the intermediate jurisdictions, left to the papal disposition but 1 out of 10 and 2 out of 50 prebends of a church, and destined the third part of all canonries which might become vacant to men who had taken regular degrees. The removal of Eugenius, however, seemed, on account of the strength of his party, so impracticable, that some

prelates, who, till then, had been the boldest and most influential speakers in the council (e. g., the cardinal legate Julian, and the great canon Nicolaus of Cusa, archdeacon of Liege, with the most of the Italians), left Basle, and went over to the party of Eugenius. The archbishop of Arles, cardinal Louis Allemand, a man of superior spirit, courage and eloquence, was now made first president of the council, and directed its proceedings with much vigor. Although its number was diminished, its most powerful protector, the emperor Sigismund, deceased, and its authority doubted by several princes and nations, on account of its open rupture with the pope; yet, in the 33d session (May 16, 1439), after violent debates, in which the archbishop of Palermo, Nic. Tudeschi (known, under the name of *Panormitanus*, as the greatest canon of his time), who was the delegate of the king of Arragon and Sicily, took the part of the pope, it declared Eugenius, on account of his obstinate disobedience of its decrees, a heretic, and formally deposed him, in the following session, as guilty of simony, perjury, violation of the laws of the church, and bad administration in his office. At this session (the 34th, June 25, 1439), only two of the Spanish and Italian members were present; but the president adopted a spirited and effectual method for obtaining the decree. He ordered the holy relics, which existed in Basle, to be placed in the seats of the absent bishops, and produced such a strong excitement in the council, which still consisted of 400, for the most part French and German prelates, priests and doctors, that it unanimously consented to the deposition of Eugenius. Notwithstanding the plague, then raging in Basle, which continually diminished its number, it proceeded, in a regular conclave (Nov. 17 of the same year), to elect the duke Amadeus of Savoy to the papal chair. This prince then lived in retirement at Ripaglia, on the lake of Geneva, and seemed particularly qualified for the office, on account of his piety, his riches and his connexions. Felix V—this was the name he adopted—was acknowledged by only a few princes, cities and universities. The chief powers, France and Germany, assented to the decrees of the council for the reformation of the church, but they chose to remain neutral in the contest with Eugenius. Meanwhile he acquired new credit by the union concluded with the Greek deputies at Florence (but afterwards rejected by the Greek church) and

the friendship of the emperor Frederic III. The council, on the other hand, denounced by Eugenius, and deserted by its protectors, gradually declined under its feeble pope, and, consulting only appearances and the personal safety of its members, held its 45th and last session May 16, 1443, after an inaction of three years, interrupted only by a few insignificant decrees. At this session, the place of meeting was changed to Lausanne. Here some prelates remained together under the cardinal Louis Allemand, until 1449, when, after the death of Eugenius and the resignation of Felix V, they gladly accepted the amnesty offered by the new pope, Nicholas V, and pronounced the council closed. The decrees of the council of Basle are admitted into none of the Roman collections, and are considered of no authority by the Roman lawyers. They are regarded, however, as of authority in points of canon law, in France and Germany, as their regulations for the reformation of the church have been adopted in the pragmatic sanctions of both countries, and, as far as they regard clerical discipline, have been actually enforced. Some later concordats have modified the application of them, but never formally and entirely annulled them. (See *Germany*, and *Galician Church*.) No general council has ever issued more just and suitable decrees for the reformation of the papal government, and of clerical discipline; none has done more to restore the authority of the bishops, which the imperious pretensions of the popes had almost annihilated, and, consequently, the ancient apostolical constitution of the church; but the canonists, who almost entirely conducted it, could not disengage themselves from the idea of the universality of the episcopal character of the pope; and, proceeding on these premises, their strongest measures for restricting his power were incomplete, and all their attempts at reformation consequently useless. If this council had accomplished its chief object—the conversion of the papal monarchy into a hierarchical aristocracy—many sources of complaint against the papal despotism would, indeed, have been removed, but the reformation of Luther, in the 16th century, would not have been prevented.

BASQUES, BASKS, VASCONES (*vasc*, from *vassoc*, that is, *man*), **BISCAYANS**; the name of the Cantabri (Gascons), a people in Spain, near the Pyrenees. They are probably descendants of the ancient Iberi, who occupied Spain before the Celts.

(See W. von Humboldt's *Etymol. histor. geogr. Inquiries respecting the first Inhabitants of Spain*.) They settled, at the end of the 6th century, on the north side of the Pyrenees, between those mountains and the Garonne. After long struggles, they submitted to the kings of the Franks. Under the Carlovingian race, they elected their own dukes; but, after the extinction of that family, they fell under the dominion of Aquitania, in the 11th century, and with it under that of France, in 1453. They preserve their ancient language and former manners, their national dances, &c. They are very good seamen, and were the first Europeans who engaged in the whale-fishery, which they have, however, long since relinquished. They occupy, in Spain, the provinces of Biscay, Guipuzcoa and Alava, (3000 square miles, 188,000 inhabitants); in France, the departments of the Upper and Lower Pyrenees, Arriège and Upper Garonne (about 70,000 inhabitants).—See the *Alphabet of the Primitive Language of Spain*, &c., extracted from de Erro, by George W. Erving, Boston, 1829.

BASS (from the Italian *basso*, deep, low); the lowest part in the harmony of a musical composition. It is the most important of all the parts, the foundation of the harmony, and the support of the whole composition.—*Figured bass* is a bass which, while a certain chord or harmony is continued by the parts above, moves in notes of the same harmony. For example, if the upper parts consist of C, E, G (the common chord or harmony of C), and, while they are continued, the bass moves from C, the fundamental note of that harmony, to E, another note of the same harmony, that bass is called a *figured bass*.—*Fundamental bass* is that bass which forms the tone or natural foundation of the harmony, and from which that harmony is derived. To explain this by an example:—if the harmony consist of the common chord of C, C will be its fundamental bass, because from that note the harmony is deduced; and if, while that harmony is continued, the bass be changed to any other note, it ceases to be fundamental, because it is no longer the note from which that harmony results, and is calculated.—*Ground bass* is a bass which starts with some subject of its own, and continues to be repeated throughout the movement, while the upper part or parts pursue a separate air, and supply the harmony. This kind of bass was greatly in fashion half a century ago, but has long since been rejected as

an unnatural restraint upon the imagination, and productive of a monotonous melody.—*Thorough bass*. (See *Thorough bass*.)—*Bass cliff* is the character put at the beginning of the stave, in which the bass, or lower notes of the composition, are placed, and serving to determine the pitch and names of those notes.—*Basso concertante* (Ital.) is the bass of the little chorus; the bass which accompanies the softer parts of a composition, as well as those which employ the whole power of the band. This part is generally taken by the violoncellos.—*Bass-counter* or *contra-bass*; the under-bass; that part which, when there are two basses in a composition, is performed by the double basses, the violoncellos taking the upper bass or *basso concertante*.—*Basso recitante* (Ital.); the bass of the little chorus. (See *Basso concertante*.)—*Basso repieno* (Ital.); the bass of the grand chorus; that bass which joins in the full parts of a composition, and, by its depth of tone and energy of stroke, affords a powerful contrast to the lighter and softer passages or movements.

BASS-RELIEF (Ital. *basso rilievo*); synonymous with *relief*; figures, more or less elevated, in stone, plaster, clay or metal, upon a flat surface. *Bass-relief* properly signifies the least elevation; *haut-relief*, or *alto rilievo*, the highest, in which the figures project half of their apparent circumference from the back-ground. The ancient artists, and the modern who have followed their principles, generally used, in their reliefs, only a single ground; but Bernini, Algardi, Angelo, Rossi, and several other modern artists, worked in several; that is, their objects appear on several back-grounds. Among the ancients, we find bass-reliefs in the pediments and friezes of temples and houses, on altars, triumphal arches, monuments (e. g., sarcophagi), on shields, vases, and other implements composed of hard and strong materials. The bass-reliefs found by von Bröndstedt, Cockerel, &c., in the temple of Apollo at Phigalia, and sold to the British museum for £15,000 sterling, are celebrated, as are also those on the column of Trajan. Among the famous modern bass-reliefs are those of Bandurli, Ghiberti and Lucca della Robbia, at Florence. Some of the finest bass-reliefs existing are by Canova and Thorwaldsen.

BASS'S STRAITS; a channel, which separates N. Holland from Van Diemen's Land; 120 miles broad; lon. 147° 30' E.; lat. 40° S.

BASSA; a country on the west coast of Africa, about 400 miles south of Sierra

Leone. It came into notice by a grant of land, which the American colonization society recently obtained there from the king. The Bassas are described as without civilization, like so many other Negro tribes of the west coast of that part of the world. (See *Liberia*.)

BASSAN (whose real name was *Giacomo de Ponte*); a painter; born in 1510. He was surnamed *Bassan* from the place, Bassano, where his father lived. His pictures are scattered all over Europe. He painted historical pieces, landscapes, flowers, &c., and also portraits; among others, that of the doge of Venice, of Ariosto, Tasso, and other persons of eminence. He lived to the age of 82, dying in 1592. Several of his best works are in the churches of Bassano, Venice, Vicenza, and other towns of Italy. He left four sons, who all became painters. Francesco was the most distinguished of them.

BASSANO, a commercial city in the Venetian delegation Vicenza, on the Brenta (lon. 11° 43' E.; lat. 45° 46' N.), has spacious suburbs, and 9600 inhabitants. Its 30 churches contain beautiful paintings. A stone bridge, 182 feet long, unites the town with the large village Vicentino. The climate is very favorable to the cultivation of the vine and olive. The trade in silk, cloth and leather is active, and Remontini's printing-house furnishes beautiful printed works and engravings. Napoleon made B. a duchy, with 11,000 dollars yearly income, and granted it, in 1809, to his minister of foreign affairs, Maret. (q. v.) Near B., Sept. 8, 1796, Bonaparte defeated the Austrian general Quosdanowich. This town must not be confounded with *Bassanelle*, on the lake Bassano, in the papal territory, capital of a duchy of the house of Colonna.

BASSANO, duke of. (See *Maret*.)

BASSET; the name of a game at cards, formerly much played, especially in France. It is very similar to the modern *faro*. Severe edicts were issued against it by Louis XIV, and it was afterwards played under the name of *pour et contre*. De Moivre, in his *Doctrine of Chances*, has calculated many problems connected with this game.

BASSET-HORN, the richest of all wind-instruments (called also *cornet*, by reason of its curvature), is believed to have been invented in Passau, in 1770. It was afterwards perfected by Theodore Lotz, in Presburg. It is, properly considered, an enlarged clarinet; and, notwithstanding the difference of its form, it resembles that, not only in its qualities and tone, but

also as regards its intonation, the mode of holding it, and fingering; so that every clarionet-player can perform on it without practice. Besides the mouth-piece, by which the intonation is given, it is formed of 5 pieces—the head-piece (called the *barrel*), 2 middle pieces, the trunk and the bell, which is usually of brass. It has 15 ventages, of which 4 are provided with open, 4 with closed keys. Its compass is $3\frac{1}{2}$ octaves, from lower F in the bass, to double C of the treble. It is seldom used in the orchestra; however, it is found in Mozart's requiem and some other pieces. The basset-horn may also be used as a bass-instrument.

BASSOMPIERRE, François de, marshal of France, one of the most distinguished and most amiable men of the courts of Henry IV and Louis XIII, was born in 1579, in Lorraine, and descended from a branch of the family of Cleve. After travelling through Italy, he appeared at the court of Henry IV, where his taste for splendor, play and gallantry made him conspicuous in the feasts and sports of the capital. In 1602, he made his first campaign against the duke of Savoy, and fought with equal distinction, in the following year, in the imperial army, against the Turks. His love of France soon called him back; he aspired to the hand of the daughter of the connetable de Montmorency, whose charms had excited the most violent passion in Henry IV. B. yielded to the solicitations of his king, and renounced his intended union with her. In 1622, Louis XIII appointed him marshal of France, and became so much attached to him, that Luynes, the declared favorite, alarmed at his growing influence, insisted upon his removal from the court, leaving him the option to accept either an embassy, or the chief command of an army, or the office of a governor. B. decided upon an embassy, and occupied this post successively in Spain, Switzerland and England. After his return, he entered again into the military service, and was present at the siege of Rochelle and Montauban. The cardinal Richelieu, who soon after obtained entire control of the king and the country, feared the boldness of B. and his secret connexion with the house of Lorraine; whose machinations served him as a pretext for sending B., in 1631, to the Bastille, from which he was not released till 1643, after the death of the cardinal. He died in 1646. B. studied, in his youth, philosophy, jurisprudence, medicine, and the military art. During his detention, he occupied him-

self with his memoirs, and the history of his embassies in Spain, Switzerland and England, which sheds much light on the events of that time.

BASSOON (Fr. *bas son*, low sound); an instrument which forms the natural bass to the hautboy. It is played, like that instrument, with a reed, and forms a continuation of its scale downwards. The reed is fixed to a crooked mouth-piece, issuing from the side of the bassoon. There, keys communicate to the ventages, which otherwise are too remote for fingering. It was formerly used as an accompaniment to the hautboy, from which it was termed *basson de hautbois*. But it is now so far improved with keys as to be susceptible of being played solo. Its compass is three octaves, from double A in the bass to *a* in the second space of the treble; and its designation generally is the F or bass-clef; yet, in the higher passages, for the more convenient arrangement of the notes, the alto, or tenor-clef, is often used. It consists of four tubes, bound together like a fagot. Hence the Italians term it *fagotto*, and from them the Germans *fagott*. In music designed for wind-instruments, it usually forms the bass. There is a modification of this instrument, much lower and stronger in its tones,—the bass-horn,—which, in field music, has of late been substituted for the serpent.

BASSORA, or **BASRAH**; a city in the Arabian Irak, situated on an arm of the Shat-ul-Arab, about half way between the junction of the Tigris with the Euphrates and the Persian gulf; 210 miles S. W. Ispahan, 600 S. E. Aleppo; lon. $47^{\circ} 30' E.$; lat. $30^{\circ} 31' N.$: pop. estimated by Heude, in 1817, at 80,000; by others at 40, 50 and 60,000. The Shat-ul-Arab is formed by the junction of the Tigris and Euphrates, and is navigable for vessels of 500 tons to Bassora, 70 miles. Merchants from Arabia, Turkey, Armenia and Greece, also Jews and Indians, reside here. The English and Dutch have consuls here, and their ships come from India loaded with merchandise. The Arabs have more power than the Turks, and the language of the former is chiefly spoken. The prince pays but little respect to the Ottoman court.—The city is surrounded by a wall about 10 miles in circuit, from 20 to 25 feet thick. The houses are generally mean, being constructed of clay, with a small proportion of bricks; and the bazars, though containing the richest products of the East, are but miserable edifices. Almost

all the inhabitants of the city are connected with trade, and its commerce is extensive, as it is the grand emporium for all the produce of India sent to the Turkish empire. The trade of the interior is conducted by means of caravans to Aleppo and Bagdad. The town is unhealthy, the environs fertile. As to the religion of the inhabitants, besides Mohammedans, there are Syrian Jacobites and Nestorians, and monks from Europe, besides some modern Sabæans, called *disciples of John*.

BASSO RELIEVO. (See *Bass-Relief*.)

BASS-VIOL; a stringed instrument, resembling, in form, the violin, but much larger. It has four strings and eight stops, which are subdivided into semi-stops, and is played with a bow.

BASTARD. The Romans distinguished two kinds of natural children—*nothi*, the issue of concubinage, and *spurii*, the children of prostitutes; the former could inherit from the mother, and were entitled to support from the father; the latter had no claims whatever to support. *Is non habet patrem, cui pater est populus*. The Athenians treated all bastards with extreme rigor. By the laws of Solon, they were denied the rights of citizenship. A law of Pericles ordered the sale of 5000 bastards as slaves. What rendered these regulations more severe was, that not only the issue of concubinage and adultery, but all children whose parents were not both Athenians, were considered bastards at Athens. Thus Themistocles, whose mother was a native of Halicarnassus, was deemed a bastard. The law, as might be expected, was often set aside by the influence of powerful citizens. Pericles himself had it repealed in favor of his child by Aspasia, after he had lost his legitimate children by the plague. The condition of bastards has been different in different periods of modern history. Among the Goths and Franks, they were permitted to inherit from the father. Thierry, the natural son of Clovis, inherited a share of his father's conquests. William the Conqueror, natural son of Robert I, duke of Normandy, and of Arlette, daughter of a furrier of Falaise, inherited his father's dominions. He called himself *Willelmus, cognomento Batardus*. The celebrated Dunois styled himself, in his letters, the *bastard of Orleans*. In Spain, bastards have always been capable of inheriting. The bastardy of Henry of Transtamare did not prevent his accession to the throne of Castile. In France, the condition of bastards was formerly

51 *

very different in the different provinces. Since the revolution, it has been regulated in a uniform manner by the general law of the kingdom. The *Code civil* thus fixes their rights: If the father or mother leave legitimate descendants, the bastard is entitled to one third of the portion he would have inherited had he been a lawful child; if the father or mother die without descendants, but leave ascendants, or brothers or sisters, then he is entitled to one half of such a portion; if the father or mother leave no ascendants nor descendants, nor brothers nor sisters, he is entitled to three quarters of such a portion; and if the father or mother leave no relations within the degrees of succession, he is entitled to the whole property. These regulations do not apply to the issue of an incestuous or adulterous connexion. The law allows no civil privileges to individuals who owe their existence to the violation of human and divine laws; it grants them only support. According to the ancient customs, the bastards of kings, acknowledged by their fathers, were princes; those of princes were gentlemen. Several distinguished men, and fabulous heroes, have been bastards—William, who conquered England; Dunois, who delivered France; the duke of Vendôme, the duke of Berwick, the marshal Saxe; Bacchus, Hercules and Romulus.—By the common law of England, a child born after marriage, however soon, is legitimate, or at least he is presumed to be so; for one born in wedlock, and long enough after the marriage to admit of the period of gestation, may still be proved illegitimate, in case of absence and non-access of the husband, and under some other circumstances. According to the common law, a bastard is not the heir of any one; and, on the other hand, his only heirs are his children born in wedlock, and their descendants. According to the Roman law, one born out of wedlock might be legitimated by subsequent marriage and acknowledgment of his parents. In 1236, the English prelates proposed the introduction of the Roman law, in this respect, into England, to which the nobility made the celebrated reply, *Nolumus leges Angliæ mutare* (We are unwilling to change the laws of England). This rule of the civil law has been adopted in many of the U. States. In Louisiana, it was naturally adopted as a part of the civil law, which is the basis of their code. The rule, that an ante-nuptial child is legitimated by the subsequent marriage of his

parents, and by being acknowledged by his father, has been engrafted into the laws of Vermont, Ohio, Georgia, Indiana, Alabama, Missouri, Mississippi, Maryland, Kentucky and Tennessee. In Tennessee, application is made to a court for a decree of legitimation, or to the legislature for an act to the same effect. Many of the states, as North Carolina, Virginia, Ohio, Indiana, Massachusetts, Missouri, Kentucky, Tennessee and Louisiana, provide that illegitimate children shall be the heirs of the mother, with the limitation, however, in some of the states, to the case of her having no legitimate children. The laws of some of these states also provide that the illegitimate children of the same mother shall be heirs to each other.

BASTIA; the former capital of the island of Corsica (lon. $9^{\circ} 26' 30''$ E.; lat. $42^{\circ} 41' 36''$ N.), upon a hill in the northeast part of the island, in the shape of an amphitheatre. It is badly built, has narrow streets, a strong citadel near the sea, a spacious, but not very commodious harbor. The inhabitants (11,400) carry on a considerable trade in hides, wine, oil, figs and pulse. The stilettoes manufactured here are held in great esteem by the Italians. In 1745, B. was taken by the English, but restored in the following year to the Genoese. In 1748, it was unsuccessfully besieged by the Austrians and Piedmontese; in 1768, it was united with France. It afterwards fell, for a short time, into the power of the English. On the new division of the French territories (1791), B. was made the capital of the department of Corsica, of which, at present, Ajaccio is the capital.

BASTILE; formerly a famous castle in Paris, in which state-prisoners and other persons arrested by *lettres de cachet* were confined. These letters of arrest were issued in the name of the king, but the names of the individuals were inserted by the ministers, who were the depositaries of these letters. Of the origin of this custom, we may perhaps find the explanation in Montesquieu's *Esprit des Loix*, where it is said, "Honor is the virtue of monarchies, and often supplies its place." A nobleman was unwilling to be dishonored by a member of his family. Filial disobedience and unworthy conduct were not uncommon among the over-refined nobility of France. In such cases, fathers and relations often requested the confinement of the offender, until the head of the family should express a wish for his release. At first, this privilege was

limited to the first families in the country. The next step was, that the ministers of government considered themselves entitled to the same privileges as heads of families among the nobility. If an offence was committed in their offices or households, which, if known, would have cast a shadow upon the ministers themselves, they arrested, *motu proprio*, the obnoxious individuals, and often made use of their privilege to put out of sight persons whose honest discharge of duty had excited their displeasure, or who were acquainted with facts disgraceful to the ministers themselves. It sometimes happened that no further examination of the prisoners was had, and the cause of their detention no where recorded. In such cases, an individual remained in prison sometimes 30 or 40 years, or even till his death, because succeeding officers took it for granted that he had been properly confined, or that his imprisonment was required for reasons of state. The invention of the *lettres de cachet* immediately opened the door to the tyranny of ministers and the intrigues of favorites, who supplied themselves with these orders, in order to confine individuals who had become obnoxious to them. These arrests became continually more arbitrary (see *Cachet, Lettres de*), and men of the greatest merit were liable to be thrown into prison, whenever they happened to displease a minister, a favorite, or a mistress. When, in the beginning of the revolution, the people destroyed the Bastille (the prison of individuals of rank, or of those whom individuals of rank would not, for good reasons, bring to trial in a lawful manner), they found but few prisoners, but enough to prove to the nation the danger of the continuance of despotism in civilized France. It also became known, that the kings of France had never obliged their ministers to give an account of the use of their *lettres de cachet*. Alas for the good old times! (See *Iron Mask*.) The story which Mercier tells of a prisoner, who had been confined in the Bastille for 47 years, and, when he received his liberty, on the accession of Louis XVI, wished to be carried back to confinement, is very interesting.

BASTINADO, or BASTONADO; a punishment used among the Turks, which consists of blows upon the back, or soles of the feet, applied with a light wooden stick, or with a knotted string.

BASTION (bulwark). In order to defend a place which is surrounded by a rampart and a ditch, it is necessary that

every point at the foot of the rampart, in the ditch and before the citadel, should be, as much as possible, commanded by the cannon of the works. This is effected by breaking the line of fortification, so that a defence sideways may be attained. Before, and for some time after the invention of gunpowder, it was thought that towers, standing out from the wall, would answer this purpose; but these soon gave place to the spacious and projecting bastions or bulwarks, which consist of two flanks, that serve principally for the defence of the neighboring bastions, and of two faces, which command the outworks and the ground before them. The wall between two bastions is called the *curtain*. These bastions are built in very different ways. Some are entirely filled with earth; some have a void space inside; some are straight, some curved, some double, some have even three or four flanks, one over the other; some have, and some have not, *fausse-brays* (see *Fortification*); sometimes they have casemates, destined for the retreat of the garrison, or for batteries; sometimes cavaliers (q. v.) or orillons (q. v.), &c. In modern times, among the fortifications built according to the system of bastions, those on the plan of Cormontaigne and the modern French works, are considered best adapted for defence. They are spacious; the flank of the side bulwark, which is perpendicular to the prolongation of the face of the principal bulwark, is not farther distant than a gunshot (300 paces) from its point; it is also straight, and orillons, and other artificial contrivances, are banished.

BAT; an order of mammiferous quadrupeds, characterized by having the tegumentary membrane extended over the bones of the extremities in such a manner as to constitute wings capable of sustaining and conveying them through the air. The name of *chiroptera*, or hand-winged, has therefore been bestowed on this order. It comprises a great number of genera, species and varieties; among which are to be found some most singular modifications of structure, in the form of the wing membranes, the figure and expanse of the ears, and the remarkable membranous appendages to the noses of various species. All the bats are either purely insectivorous, or insecti-frugivorous, having exceedingly sharp cutting, and acutely tuberculated jaw teeth, and the whole race is nocturnal. They vary in size from that of the smallest common mouse up to that of the gigantic ternate

bat, whose body is as large as that of squirrel. The smaller species are abundantly distributed over the face of the globe; the larger appear to be confined to warm and hot regions, where they exist in great numbers, and are very destructive to the fruits. The purely insectivorous species render great service to mankind by the destruction of vast numbers of insects, which they pursue with great eagerness in the morning and evening twilight. During the day-time, they remain suspended by their hooked hinder claws, in the lofts of barns, in hollow or thickly-leaved trees, &c. As winter approaches, in cold climates, they seek shelter in caverns, vaults, ruinous and deserted buildings, and similar retreats, where they cling together in large clusters, and remain in a torpid condition until the returning spring recalls them to active exertions. We here observe the admirable arrangement of the great Author of nature, who has rendered it necessary that these animals should be torpid during all the time that their appropriate food is not to be obtained. In warm climates, where a constant succession of insects occurs, the same species of bat, which, in a cold region, would become torpid, continue in activity throughout the year.—Bats enjoy the senses of sight and hearing to a considerable degree of perfection, but the acuteness of their sense of touch is perhaps unequalled throughout the whole extent of animal organization. In consequence of the great expansion of integument forming the exceedingly delicate membrane of the wings, ears and nasal appendages, bats are able, even when deprived of their eyes, to fly in such a manner as to avoid every obstacle. Silk threads, small sticks, or obstructions placed across the course of flight of a bat purposely blinded by taking out its eyes, are avoided with the most surprising dexterity, and advantage is taken of any space to pass between without touching them. Every inequality in the ceiling of a hall or chamber is avoided in the same way. The reaction of the air against the membranes is sufficient to warn them of any obstacle, however slight, and enables them to turn, lower themselves, or draw in their wings, so as to clear the body, without the least appearance of effort. These soft, velvet-like wings also enable them to fly without noise, and, although their motion is unsteady and wavering, they advance with exceeding swiftness. From a flat or level surface, it is very difficult, though not

entirely impossible, for them to rise into the air. They always suspend themselves by the hooks on their hind feet, whence they readily take wing by relinquishing their hold. The hook at the extremity and anterior edge of the fore-arm corresponds in situation to the human thumb, and the bats use it with peculiar advantage in changing their position, to perform their evacuations, &c. We have observed the smaller species of bat, especially the young of the *vespertilio arcuatus* (Say), to be exceedingly infested by the common bed-bug (*cimex lectularius*), and have thence been led to conclude, that bats may be the means of conveying these noisome insects into houses, as they frequently take up their lodgings in chimneys belonging to bed-chambers, to which the bugs thus obtain easy access. Bed-bugs are often observed in entirely new houses, into which furniture altogether new has been introduced. On a single bat, obtained in the open air from a large occidental plane or button-wood tree, we have seen a profusion of bugs sufficient to have furnished a stock capable of soon infesting a whole neighborhood. It may be well, occasionally, to smoke such lodgers out of chamber chimneys during summer, to prevent the introduction of their annoying and disgusting companions.—Bats generally bring forth two young, and suckle them until old enough to purvey for themselves. While suckling, they remain closely attached to the mother's teats, which are two, situated upon the chest. The parent shows a strong degree of attachment for her offspring, and, when they are captured, will follow them, and even submit to captivity herself, rather than forsake her charge.—The voice of the small bats, when irritated, is a sharp, chattering sort of squeak. They bite with much force, and those of considerable age and size can inflict a very severe injury, as their teeth are pointed and keen.

BATALHA; a village, 52 miles from Lisbon, with a convent of Dominicans, founded by king John I, in commemoration of a victory over the king of Castile, near Aljubarota, in the year 1385. This convent is one of the most splendid buildings in Europe, erected, in the Gothic style, by an Irishman, named Hacket. The decorations are partly mystical and hieroglyphical, and not yet deciphered. The most difficult of them are on the mausoleum of the founder. Foreign monarchs have also enriched and adorned this convent. The royal sepulchre of the family of Braganza is now at Belem.

BATAVIA; a city and seaport of Java, on the north coast of the island, near the west end; capital of all the Dutch or Netherland East Indies; lon. 106° 54' E.; lat. 6° 12' S.: population, about 1780, estimated at 160,000; in 1795, including a circuit of 10 miles, 116,000. In 1816, the population of the city was reduced to 47,217; of whom 14,239 were slaves, 11,854 Chinese, 7720 Balinese, 4115 natives of Celebes, 3331 Javanese, 3155 Malays, 2028 Europeans and their descendants. It was founded by the Dutch in 1619, taken by the British in 1811, but restored to the Dutch in 1816. It is situated on a wide, deep bay, in which are interspersed many low, green islets, within which ships find safe anchorage. It is rather a roadstead than a harbor, but, from its westerly situation and easy access, is the best and most convenient port in the island. The greatest inconvenience is the bar at the mouth, which, at low water, is almost dry, and seldom has six feet water. The town is situated in a low, marshy plain, at the union of small rivers, which are navigable for boats; and in many of the streets are canals filled with water almost stagnant. The miasmata, generated in the putrid mud-banks and canals, render the town exceedingly unhealthy, and subject to an intermittent fever, very mortal to strangers. B., on account of the beauty of its buildings and immense trade, has been styled the *Queen of the East*. But, within a few years, the town has lost a great part of its splendor. Streets have been pulled down, canals half filled up, forts demolished, and palaces levelled with the dust. The campings, or quarters of the native population, are of mean appearance. In the part inhabited by Europeans, the streets are more regular, and the houses spacious, but not elegant. The public edifices are neither numerous nor splendid. The principal are the stadt-house, a Calvinistic, a Lutheran and a Portuguese church, several Mohammedan mosques, and some Chinese temples. There are also some charitable institutions. (See *Java*.)

BATAVIAN REPUBLIC; the name adopted by the Seven United States, soon after the French revolution, and acknowledged by the powers of Europe. The whole republic was declared one and indivisible; all members of society were declared equal in the eye of the law, without respect to rank or birth; all religious societies, acknowledging a Supreme Being, equally protected by law. Feudality was abolished, all fiefs declared allodial, and

possessors of lordships to be indemnified. In 1806, the form of government was changed into a kingdom, under the name of *Holland*; and, in 1815, these provinces were united with Belgium to form the kingdom of the Netherlands. (See *Netherlands*.)

BATAVIANS; an old German nation, which inhabited a part of the present Holland, especially the island called *Batavia*, formed by that branch of the Rhine which empties into the sea near Leyden, together with the Waal and the Meuse. Their territories, however, extended much beyond the Waal. Tacitus commends their bravery. According to him, they were, originally, the same as the *Catti*, a German tribe, which had emigrated from their country on account of domestic troubles. This must have happened before the time of Cæsar. When Germanicus was about to invade Germany from the sea, he made their island the rendezvous of his fleet. Being subjected by the Romans, they served them with such courage and fidelity as to obtain the title of their friends and brethren. They were exempted from tributes and taxes, and permitted to choose their leaders among themselves. Their cavalry was particularly excellent. During the reign of Vespasian, they revolted, under the command of Civilis, from the Romans, and extorted from them favorable terms of peace. Trajan and Adrian subjected them again. At the end of the third century, the Salian Franks obtained possession of the island of Batavia. After the constitution of the United Provinces was changed by the French, in 1798, they formed the Batavian republic, until Louis Bonaparte became king of Holland (1806).

BATH; a city, in Somersetshire, Eng., 12 miles E. Bristol, 67 S. W. Oxford, 107 W. London; lon. $2^{\circ} 29' W.$; lat. $51^{\circ} 23' N.$: population, in 1823, including the suburbs, 38,434; 15,275 males, and 23,159 females. It is beautifully situated on the Avon, in a narrow valley, bounded on the N. E. and S. W. by hills, and widening on the N. W. into rich and extensive meadows. The Avon is navigable from Bath to Bristol. It has borne various names in different ages, all having allusion to its celebrated waters. The Romans called it *Aqua Solis*, *Fontes Calidi*, *Thermæ*, *Bodonia*, and *Bathonia*; the Britons, *Caer Badun*, or *Bladon*; the Saxons, *Hat Bathun*, and *Achamannum*. The vestiges of the Romans here are still exceedingly numerous, and show the high value which they placed upon the waters.—B. is re-

markable for medicinal waters, for its various sources of amusement, for the elegance of its streets, and the magnificence of its public buildings. It is accounted the most elegant city in England. The houses are of superior construction, built of freestone, obtained from the hills about the town. The cathedral is in the form of a cross, and is the purest specimen of Gothic architecture in the kingdom. There are three churches and one chapel within the city, and, without the boundaries, three churches and seven chapels; also places of public worship for Methodists, Independents, Baptists, Moravians, Catholics, Unitarians and Quakers. It contains the general hospital for the reception of invalids, who desire the benefit of the waters, from all parts of the world; several other hospitals and charitable institutions; the Bath and West of England society; the philosophical society, public grammar school, &c.—There are five public baths, viz. King's and Queen's bath, Cross bath, Hot bath and New Private bath. The temperature of the different springs varies from 93° to 117° Fahrenheit. That of the King's bath is 116° , that of the Hot bath 117° , and that of the Cross bath 111° . They contain carbonic acid, azotic gas, muriate and sulphate of soda, carbonate and sulphate of lime, with a very small quantity of silica and oxycarbonate of iron. They are found of great efficacy in cases of gout, rheumatism, indigestion, palsy, and biliary obstructions. The population of Bath varies greatly at different seasons. It affords a great variety of amusements, and is equally the resort of valetudinarians and votaries of pleasure.

BATH; a post-town and port of entry in Lincoln county, Maine, on W. side of the Kennebeck, 12 miles from the sea; 13 S. W. Wiscasset, 35 N. E. Portland; lon. $69^{\circ} 49' W.$; lat. $43^{\circ} 55' N.$: population, in 1810, 2491; in 1820, 3026. B. is pleasantly situated, and has great advantages for commerce, being at the head of winter navigation. The river here is seldom frozen over. It is one of the most commercial towns in Maine, and considerably engaged in ship-building. It contains an academy, two banks, and three houses of public worship.

BATH. Bathing undoubtedly took place first in rivers and in the sea, but men soon learned to enjoy this pleasure in their own houses. Even Homer mentions the use of the bath as an old custom. When Ulysses enters the palace of Circe, a bath is prepared for him, after which he is anointed with costly perfumes, and dress-

ed in rich garments. The bath, at this period, was the first refreshment offered to the guest. In later times, rooms, both public and private, were built expressly for the purpose of bathing. The public baths of the Greeks were mostly connected with the gymnasias, because they were taken immediately after the athletic exercises. The Romans, in the period of their luxury, imitated the Greeks in this point, and built magnificent baths. The following description applies both to the Greek and Roman baths:—The building which contained them was oblong, and had two divisions, the one for males, the other for females. In both, warm or cold baths could be taken. The warm baths, in both divisions, were adjacent to each other, for the sake of being easily heated. In the midst of the building, on the ground-floor, was the heating-room, by which not only the water for bathing, but sometimes also the floors of the adjacent rooms, were warmed. Above the heating-room was an apartment in which three copper kettles were walled in, one above another, so that the lowest was immediately over the fire, the second over the first, and the third over the second. In this way, either boiling, lukewarm or cold water could be obtained. The water was carried, by separate pipes, provided with cocks, from these kettles into the bathing-rooms, and a fresh supply was immediately poured into the kettles from a reservoir. Close to the heating-room were three separate rooms on each side, for the hot, the lukewarm and the cold bath. The bathing-rooms had, in the floor, a basin of mason-work, in which there were seats, and round it a gallery, where the bathers remained before they descended into the bath, and where, also, the attendants were. There was also a sweating-room, which was heated by means of flues, and was called *laconicum*. This room had an opening in the ceiling, through which the light fell, and from which was suspended a brazen plate, that could be raised and let down at pleasure, to increase or lessen the heat. For undressing, for receiving the garments, and for anointing after bathing, there were different rooms; and connected with the bath were walks, covered race-grounds, tennis-courts and gardens. These buildings, together with a number of bathing-rooms, were necessary for a public bath, which was adorned with splendid furniture, and all the requisites for recreation, and resembled, in its exterior appearance, an extensive palace. Roman luxury, always in search of means

for rendering sensual enjoyments more exquisite, in later times, built particular conduits for conducting sea-water to the baths, used mountain snow, and enlarged these establishments in such a way that even their ruins excite admiration. (See Wichelhausen, *On the Baths of the Ancients*, Mannheim, 1807.)—Among the Europeans, the Russians have peculiar establishments for bathing, which are visited by all classes of the people during the whole year. The Russian bath consists of a single hall, built of wood. In the midst of it is a powerful metal oven, covered with heated stones. Round about there are broad benches. In entering this hall, you encounter such a heat, that one who is not accustomed to it can bear it but a few moments. Those, however, who can endure it for some time, undress, and stretch themselves on a mattress upon one of the benches. Cold water is then poured on the heated stones; a thick, hot steam rises, which envelopes the bather, and heats him to such a degree, that the sweat issues from his whole body. The thermometer, in this steam, usually rises to 40° or 50° Réaumur (122°—142° Fahrenheit). After the Russian has enjoyed his bath in this way, he is gently whipped with wet birch rods, rubbed with soap, in order to lessen the perspiration, and, afterwards, washed with lukewarm and cold water; of the latter some pails-full are poured over his head; or else he leaps, immediately after this sweating-bath, into a river or pond, or rolls in the snow. The Russian of higher rank takes, after his bath, a draught of English ale, white wine, toasted bread, sugar and citrons, and rests upon a bed. The common Russian, after having cooled himself in the snow, drinks some brandy, and goes again to his work. The people regard these baths as a necessary of life, and they are to be found in every village. They are also met with in Finland.—Among the Asiatics, baths are in general use. The Turks, by their religion, are obliged to make repeated ablutions daily: besides these, men and women must bathe in particular circumstances and at certain times. For this purpose, there is, in every city, a public bath connected with a mosque; and rich private persons possess private bath-houses, adorned with all the objects of Asiatic luxury. Besides these baths, the Turks have also the dry-bath of the ancients. The buildings, which they use for this purpose, are built of stone, and usually contain several rooms, the floors of which are of marble. These

rooms are heated by means of pipes, which pass through the walls, and conduct the heated air to every part. After undressing, they wrap themselves up in a cotton coverlet, put on wooden slippers, in order to defend the feet against the heat of the floor, and then enter the bath-room. The hot air soon produces a profuse perspiration; upon which they are washed, wiped dry, combed, and rubbed with a woollen cloth. At last, the whole body is covered with soap, or some other application, which improves the skin. After this bath, they rest upon a bed, and drink coffee, sherbet or lemonade. The Turkish ladies daily bathe in this manner; the men not so frequently. A peculiar kind of baths are used in the East Indies, of which Anquetil gives the following account:—An attendant stretches the bather upon a table, pours over him warm water, and begins, afterwards, with admirable skill, to press and to bend his whole body. All the limbs are extended, and the joints made to crack. After he has done with one side, he goes on with the other; now kneels upon the bather; now takes hold of his shoulders; now causes his spine to crack, by moving the vertebrae; now applies gentle blows to the fleshy and muscular parts. After this, he takes a cloth of hair, and rubs the whole body, removes the hard skin from the feet with pumice-stone, anoints the bather with soap and perfumes, and finishes by shaving and cutting his hair. This treatment lasts about three quarters of an hour, and produces the greatest refreshment. An agreeable feeling pervades the whole body, and ends with a sweet slumber of several hours.—Public baths are common in Europe, and there are, at present, few cities without them. Medicine has endeavored to increase the wholesome effects of baths by various compositions and methods of application. Baths are distinguished by the nature of the fluid, by the degree of heat, and by their influence upon the body. They are prepared with water, milk, wine, &c.; are of different temperatures; and herbs, iron, soap, and other substances are mixed with them, as the purpose requires. There are, also, baths of earth, sand, air, vapor, and electric baths. They are applied either to the whole body, or only to a single part. The shower bath affords an agreeable and healthful mode of bathing, and much use is made of it in medicine. Mineral baths are those, the water of which naturally contains mineral ingredients. (See *Mineral Wells*,

Vapor Baths, Salt Baths and Sea Bathing.)

BATH, KNIGHTS OF THE; a military order of England, concerning the origin of which antiquaries differ. It is certain that Henry IV, on the day of his coronation, conferred the degree upon 46 knights. From that time, the kings of England have bestowed this dignity previous to coronations, after births and marriages of the royal issue, &c. Charles II created several knights of the Bath, but, after his time, the order fell into neglect, till 1725, when George I revived it. By the book of statutes then prepared, the number of knights was fixed at 38, viz. the sovereign and 37 knights-companions. The king allowed the chapel of king Henry VII, in Westminster abbey, to be the chapel of the order. The dean of Westminster is dean of the order. An esquire of the order is allowed to hunt and fish in the king's royalty, and is exempted from serving in the office of high sheriff, and every parochial office. *K. B.* is the abbreviation for *knight of the Bath*.

BATHOS (*Greek*): signifies depth. We now use this word to signify a low, tame and creeping style. This application of the word was introduced by Swift, who, in his *Art of Sinking in Poetry*, opposes the *bathos* to the *sublime*.

BATHURST, Allen, earl, the son of sir Benjamin Bathurst, was born in London, in 1684. He was educated at Oxford, and represented the borough of Cirencester, in two parliaments, during the reign of Anne, whose tory administration he strongly supported; and, in return, was raised to the peerage, in 1711. He was a warm opponent to sir Robert Walpole, and, in 1757, was appointed treasurer to prince George, then prince of Wales, on whose accession to the throne he obtained a pension of £2000 per annum. He received an earldom in 1772. Lord Bathurst is distinguished as the intimate friend of Bolingbroke, Addison, Pope, Swift, Gay, and all the celebrated wits of the age, and was himself a man of bright parts and convivial disposition. He died in 1775, at the advanced age of 91.

BATHURST, Henry, earl, an English nobleman, was, in 1795, appointed one of the commissioners for India, and, in 1809, one of the principal secretaries of state. On the appointment of Canning as prime minister, 12th April, 1827, he was one of the six Anti-Catholic members of the cabinet who sent in their resignations. Lord Goderich succeeded him as secretary of state for the colonies in the new ministry.

He defended his resignation on the plea that the loss of Wellington, Peel and Eldon left a blank which could not be filled in such a manner as to allow him to remain in the cabinet. Jan. 1828, on the formation of the present cabinet, he was made president of the council.

BATHURST; a settlement on the west coast of Africa, formed by the English, within a few years, on the island of St. Mary's, near the mouth of the Gambia; lat. $13^{\circ} 25' N$. It was formed in connexion with the colony of Sierra Leone; the object being to establish an equitable commerce, instead of the slave-trade. Population, in 1819, exclusive of the garrison, upwards of 1000. The settlement has been prosperous. The exports consist of wax, ivory, gold, hides, gum, &c. The duties on the amount exported to England, in 1819, were upwards of £11,000.—There is a town of the same name in New Holland, in the region of Botany Bay, 140 miles from Sydney, with which it is connected by a fine road.

BATHYLLUS; a native of Alexandria, rival of Pylades as a pantomime, particularly distinguished in lively and voluptuous representations. He was a slave of Mæcenas, who gave him his liberty, and, according to the testimony of Tacitus, the object of a licentious attachment on his part.—In Anacreon's odes, a handsome boy is mentioned under the name of B. Also, a poet of this name lived in the reign of Augustus.

BATISTE; cambric; a very fine, thick, white, linen cloth. It is made of the best white flax, called *ramé*, which is cultivated in the French Hainault. In the 13th century, this manufacture is said to have been brought into vogue by Baptista Chambrai, in Flanders, and the linen afterwards received from him the name of *batiste*, or cambric (*toile de Chambrai*). Others think that the first appellation is derived from the fine linen which we receive from India, where it is called *bastas*. Different kinds of batiste are called *linons*, *claires*, *cambrics*, &c., and manufactured not only in France and the Netherlands, but also in Switzerland, in Bohemia and Silesia. The best come from India. (See *Cambric*.)

BATMAN; a kind of weight, used at Smyrna, consisting of six okes. 40 batmans make a camel's load, and amount to about 720 pounds in English weight. There are four different kinds of this weight—a small and large Turkish one, and a small and large Persian one.

BATON ROUGE; a post-town and capi-

tal of East Baton Rouge parish, Louisiana, on the east bank of the Mississippi, 15 miles above Iberville, 150 above New Orleans by the river, 80 W. N. W. in a straight line from New Orleans; lon. $91^{\circ} 15' W$.; lat. $30^{\circ} 32' N$. It contains a court-house, a jail, a market-house, a Catholic church, a printing office, and upwards of 200 houses. It is pleasantly situated on the first eminence that is seen on the Mississippi, in ascending it from its mouth. The elevation above high-water mark is 25 or 30 feet. On the north side of the town is a piece of ground belonging to the U. States, on which are the remains of the old Spanish fort. Baton Rouge is situated in a district exceedingly fertile, producing abundant crops of cotton, sugar, maize, sweet potatoes, &c.

BATONI, Pompeo Girolamo; born at Lucca, in 1708; died at Rome, in 1787. This famous restorer of the modern Roman school had no rival but Mengs. All his pieces are taken from nature. The manner in which he executed his paintings was peculiar. He covered his sketch with a cloth, and began to paint the upper part on the left hand, and proceeded gradually towards the right, never uncovering a new place before the first was entirely finished. Boni, who compares him with Mengs, calls the latter the *painter of philosophy*; the former, the *painter of nature*. B. painted many altar-pieces and numerous portraits; for instance, that of the emperor Joseph and the empress Maria Theresa, in the imperial gallery. His *Magdalen*, in Dresden, and his *Return of the Prodigal Son*, in Vienna, are celebrated.

BATRACHOMYOMACHIA (Greek; *βάτραχος*, a frog, *μῦς*, a mouse, and *μάχη*, a battle); the battle of the frogs and the mice—a mock heroic poem, falsely ascribed to Homer, and, apparently, the Iliad travestied, probably composed by an Alexandrian, in which a war between the frogs and the mice is described with much humor.

BATTÀ; a country of Sumatra, which stretches along the south-western shore, between Sinkell and Tabuyong, across the island. The whole population is estimated at a million, 2 or 300,000 of whom can read. The soil is fertile, and produces chiefly camphor, gum, benzoin, cassia, cotton and indigo. The language of the Battas is a settled one, and extensively written. They have many neatly-printed books.—There is another Batta, a province in Africa, formerly an independent

state, now subject to Congo. The principal towns are Batta, Cangon and Agysimba.

BATTALION; a division of infantry, commonly 600—800 men strong, in the armies of the European continent. The battalion forms an independent body, under the orders of a staff-officer, commonly a major; has its own standard, a musical band, and consists not, like the regiments, of unequal companies, but of equal divisions. Therefore the strength of infantry is always given in battalions. In the English army, the strength of a battalion varies from 600 to 1000, or even 1200 men. Each of their battalions consists of four divisions, each division of two subdivisions, which are again divided into sections. Each regiment of Napoleon's army had a battalion of light troops, *voltigeurs*. This is also the case in the Prussian army, where they are called *Füsiliers*. Battalions form the most convenient and manageable columns; and the columns of battalions are those which most frequently occur in modern battles. Squares of companies are only formed in cases of urgent necessity, and columns of regiments form very heavy and awkward bodies.

BATTERING RAM. The ancients employed two different machines of this kind—the one suspended, and vibrating after the manner of a pendulum, and the other movable, on rollers. These were denominated the *swinging* and *rolling ram*, and, when worked under a cover or shed, to protect the assailants, they were denominated *tortoise rams*, from the shed being assimilated to a tortoise-shell. The swinging ram resembled, in magnitude and form, the mast of a large vessel, suspended horizontally at its centre of gravity, by chains or cords, from a movable frame. Ligatures of waxed cord surrounded the beam at short intervals, and cords at the extremity, opposite to the head, served for the purpose of applying human force to give the oscillatory motion. Other cords, at intermediate distances, were also sometimes employed. The rolling ram was much the same as the above in its general construction, except that, instead of a pendulous motion, it received only a motion of simple alternation, produced by the strength of men applied to cords passing over pulleys. This construction seems to have been first employed at the siege of Byzantium. These machines were often extremely ponderous. Appian declares that, at the siege of Carthage, he saw two rams

so colossal that 100 men were employed in working each. Vitruvius affirms that the beam was often from 100 to 120 feet in length; and Justus Lipsius describes some as 180 feet long, and two feet four inches in diameter, with an iron head weighing at least a ton and a half. In contrasting the effects of the battering ram with those of the modern artillery, we must not judge of them merely by the measure of their respective momenta. Such a ram as one of those described by Lipsius would weigh more than 45,000 lbs., and its momentum, supposing its velocity be about two yards per second, would be nearly quadruple the momentum of a 40 lb. ball moving with a velocity of 1600 feet per second. But the operation of the two upon a wall would be very different. The ball would penetrate the opposing substance, and pursue its way almost undisturbed; but the efficacy of the ram would depend almost entirely upon duly apportioning its intervals of oscillation. At first, it would produce no obvious effect upon the wall; but the judicious repetition of its blows would, in a short time, give motion to the wall itself. First, there would be a just perceptible tremor, then more extensive vibrations; these being evident, the assailants would adjust the oscillations of the ram to that of the wall, till, at length, a large portion of it, partaking of the vibratory impulse, would, by a well-timed blow, fall to the earth at once. This recorded effect of the ram has nothing analogous in the results of modern machinery.

BATTERY, in the military art; 1. any raised place in which cannon are planted; 2. all the lines of a fortress, behind the parapets of which are cannon. They are erected in the open field, in citadels, on a lake or the sea, before a place which is to be besieged, &c. With regard to the kind of artillery, they are distinguished into cannon, howitzer, mortar, &c. With regard to their object, they are divided into breach batteries, used to attack the faces or salient angles of the bastion or ravelin, in order to make an accessible breach; batteries *en echarpe*, or oblique batteries, which are erected beside the breach batteries, under an angle of 20—30 degrees, in order to batter a breach obliquely; *ricochet* batteries, which command the enemy's lines, so that the balls roll along the whole length of the rampart, and render it insecure, &c. Their position is perpendicular to the line which is to be enfiladed. Mortar batteries have the parapets inwards, and no embrasures.

In respect to their position, they are divided into horizontal, raised and sunk batteries. The disposition of floating batteries may be various. Such a battery commonly consists of a raft, in the middle line of which cannon are placed, having before them breastworks made of bags of wool. The raft is fastened, by a strong cable, to a beam or anchor, round which it is to be moved, and brought, by the aid of oars or rudders, to the proper place.—(For an account of the floating batteries invented by d'Arçon, which were used, in 1782, against Gibraltar, see *Elliot*.)—In experimental physics, *battery* is a combination of several jars or metallic plates, to increase the effect of electricity and galvanism. (See *Leyden Jar*, and *Galvanism*.)

BATTERY. (See *Assault*.)

BATTEUX, Charles; honorary canon of Rheims, born, May 7, 1713, at Allend'huy, a village near Rheims. He displayed his gratitude to this city, in which he received his education, by the ode *In Civitatem Remensem*, 1739, which was much admired. In 1750, he was invited to Paris, where he taught rhetoric in the colleges of Lisieux and Navarre. He was afterwards appointed professor of Latin and Greek philosophy at the royal college. In 1754, he became a member of the academy of inscriptions, and, in 1761, of the French academy. His constitution, naturally strong, sunk under his exertions, and he died July 14, 1780. His eulogy was pronounced by M. Delille, then director of this society. B. left a large number of valuable works. He has done much service to literature and the fine arts, by introducing unity and system into the numerous canons of taste, which had gained a standing among the French by the example of many eminent men, particularly in regard to poetry, and must be regarded as a valuable writer on *æsthetics*, notwithstanding the higher point of view from which this science is now considered. Some of his most valuable works are *Les Beaux-Arts réduits à un même Principe*, Paris, 1747; and *Cours de Belles-Lettres ou Principes de la Littérature*, Paris, 1774, and several times afterwards. These works have been translated into many other languages. (See *Philosophy*.)

BATTLE. The object of a war may be obtained in two different ways: either one party forces the enemy, by skilful manœuvres, marches, demonstrations, the occupation of advantageous positions, &c., to quit the field (which belongs to the province of *strategy*); or the hostile

masses approach each other (by design or by chance), so that a battle becomes necessary to determine which shall keep the field. The rules for insuring a successful issue, whether they respect the preparations for the conflict, or the direction of the forces when actually engaged, belong to *tactics*, in the narrower sense of the word. *Strategy* also shows the causes which bring armies together, and produce battles without any agreement between the parties. It belongs not to this article to explain this point. It may be sufficient to say, in general, that armies, in their marches (and consequently in their meeting), are chiefly determined by the course of the mountains and rivers of a country. In ancient times and the middle ages, the battle-ground was often chosen by agreement, and then the battle was a mere trial of strength, a duel *en gros*; but, in our time, such trifling is done away. War is now carried on for the real or pretended interest of a nation, or a ruler who thinks or pretends that his interest is that of the nation. Wars are not undertaken for the purpose of fighting, and battles are merely the consequence of pursuing the purpose of the war. They arise from one party's striving to prevent the other from gaining his object. Every means, therefore, of winning the battle is resorted to, and an agreement can hardly be thought of. In this respect, a land battle is entirely different from a naval battle. The former is intended merely to remove an obstacle in the way of gaining the object of the war; the destruction of the enemy, therefore, is not the first thing sought for. The views of one party can often be carried into effect with very little effusion of blood; and if a general can obtain the same end by manœuvring as by a battle, he certainly prefers the former. But the object of a naval engagement is, almost always, the destruction of the enemy; those cases only excepted, in which a fleet intends to bring supplies or reinforcements to a blockaded port, and is obliged to fight to accomplish its purpose.—As the armies of the ancients were not so well organized as those of the moderns, and the combatants fought very little at a distance, after the battle had begun, manœuvres were much more difficult, and troops, when actually engaged, were almost entirely beyond the control of the general. With them, therefore, the battle depended almost wholly upon the previous arrangements, and the valor of the troops. Not so in modern times. The

finest combinations, the most ingenious manœuvres, are rendered possible by the better organization of the armies, which thus, generally at least, remain under the control of the general. The battle of the ancients was the rude beginning of an art now much developed. It is the skill of the general, rather than the courage of the soldier, that now determines the event of a battle. There is, probably, no situation, which requires the simultaneous exertion of all the powers of the mind more than that of a general at the decisive moment of a battle. While the soldier can yield himself entirely to the impulse of his courage, the general must coolly calculate the most various combinations; while the soldier retreats, the general must endeavor to turn the tide of battle by his ardor or his genius. Daring courage, undaunted firmness, the most active and ingenious invention, cool calculation and thorough self-possession, amid scenes of tremendous agitation, and under the consciousness that the fate of a whole nation may depend on him alone in the trying moment,—these are the qualities which a good general cannot dispense with for a moment. If it is the character of genius to conceive great ideas instantaneously, military genius is, in this respect, the greatest. Great generals have therefore been, in all ages, the objects of admiration; and as a great artist may be no example, in a moral point of view, although we admire the genius displayed in his productions, so we cannot but bestow the same kind of admiration on the high intellectual gifts of a great general. Few situations, therefore, enable a man to acquire higher glory, than that of a great commander in a good cause.—If troops meet accidentally, and are thus obliged to fight, it is called a *rencontre*. Further, battles are distinguished into *offensive* and *defensive*. Of course, a battle which is offensive for one side is defensive for the other. Tacticians divide a battle into three periods—that of the disposition, that of the combat, and the decisive moment. The general examines the strength, reconnoitres the position, and endeavors to learn the intention of the enemy. If the enemy conceals his plan and position, skirmishes and partial assaults are often advisable, in order to disturb him, to obtain a view of his movements, to induce him to advance, or with the view of making prisoners, who may be questioned, &c. Since the general cannot direct all these operations in person, few of the

staff and aids assist him; single scouts or small bodies are sent out, and spies are employed. Any person or thing (ministers, peasants, shepherds, maps, &c.), which can afford information of the enemy, or the ground on which the battle is likely to take place, is made use of for obtaining intelligence, by force or otherwise. According to the knowledge thus acquired, and the state of the troops, the plan of the battle, or the disposition, is made; and here military genius has an opportunity to display itself. There is an immense difference between the quick, clear and ingenious disposition of a great general, which shows the leading features of the plan to every commander under him, and provides for all cases, favorable or unfavorable, with a few distinct touches, without depriving the different commanders of freedom of action, and the slow, indistinct, minute, and, after all, inaccurate dispositions of a feeble commander. Napoleon's dispositions are real masterpieces. Like a great artist, he delineates, with a few strokes, the whole character of the battle; and as the disciples of Raphael assisted in the painting of his pictures, but necessarily worked in the great style of their master, which his first lines gave to the picture, so all the skilful generals under Napoleon labored for the accomplishment of one great end, sometimes disclosed to them, sometimes concealed in the breast of the commander. To the disposition also belongs the detaching of large bodies which are to co-operate in the battle, but not under the immediate command of the chief. The plan of the battle itself, the position of the troops, &c., is called the *order of battle* (*ordre de bataille*). This is either the *parallel*, or the *enclousing* (if the enemy cannot develop his forces, or you are strong enough to outflank him), or the *oblique*. (See *Attack*.)* When each division of troops has taken its position, and received its orders, and the weaker points have been fortified (if time allows it), the artillery placed on the most favorable points, all chasms connected by bridges; villages, woods, &c., taken possession of, and all impediments removed as far as possible (which very often cannot be done, except by fighting), then comes the second period—that of the engagement. The combat begins, either on several points at a given signal, as is the case when the armies are very large, and a general attack is

* On the oblique order of battle, see *Mélanges* I. iii. dicté au comte de Montholon; and *Précis des Guerres de Frédéric II.*

intended, as, for instance, at Leipsic, where three fire-balls gave the signal for battle on the side of the allies; or by skirmishes of the light troops, which is the most common case. The artillery endeavors to dismount the batteries of the enemy, to destroy his columns, and, in general, to break a passage, if possible, for the other troops. The forces, at the present day, are brought into action mostly in columns, and not, as formerly, in long but weak lines. Here the skill of the commanders of battalions is exerted. Upon them rests the principal execution of the actual combat. The plans and orders of a general reach only to a certain point; the chiefs of battalions must do the great work of the battle. Before the battle, the general places himself upon a point, from which he can see the conflict, and where he can easily receive reports—upon a hill, in a windmill, &c. Sometimes, if there is no such favorable point, a staging is erected. Napoleon stood upon such a one in the battle of Waterloo. A few men are near him, as his body-guard; others take charge of the plans and maps; telescopes are indispensable. He often sends one of his aids to take instant command of the nearest body of cavalry, in order to execute an order which must be carried into effect quickly. He receives the reports of the generals under him, and gives new orders; disposes of the troops not yet in action; strengthens weak points; throws his force upon the enemy, where he sees them waver; or changes, if necessary, with a bold and ingenious thought, the whole order of battle. The general now uses every means to bring on the third period of the battle—the decisive moment. This cannot always be the result of combinations. It often takes place much sooner than was expected; it is often protracted by accidents, want of energy on the part of the commanders, &c. Sometimes all the operations are drawing to the end, which the general aimed at, when an unforeseen accident suddenly gives a new impulse to the enemy. Victory or defeat depend now upon one moment, one happy idea. Perhaps it is all-important to break, at once, the enemy's

centre; perhaps to concentrate the destructive power of the artillery, and, sweeping away some obstacle, to send, as Napoleon often did, a torrent of cavalry upon a certain point. Any thing which can carry disorder into the ranks of the enemy is of great use. If he begins to waver, or to retreat in order, or to flee in disorder, it is always necessary to follow up the victory with all possible vigor and celerity. This is as important as victory itself. Napoleon was, till the last war in Germany, a master in this particular. There are three maxims as important for the general as they are simple:—1. Know your enemy, his strength and intentions; 2. make all the operations and manœuvres of the parts coincide, as much as possible, with the great plan of the battle; 3. pursue victory to the utmost. It is also a maxim, in regard to battles, as well as to the conduct of war generally, to make the enemy conform to your plans, and to avoid the necessity of accommodating yourself to his. Stratagems often are of the greatest advantage. After a battle, care must be taken of the wounded. Soldiers are often appointed to take care of their unfortunate comrades during the battle. It ought to be always done, though it never can do good to any great extent. At night, if cold, fires are lighted, that the wounded may creep to them. Peasants are sent out to bring in the living, and to bury the dead in large pits; but, if possible, soldiers should always be sent with them, because the peasants, if of the enemy's nation, often plunder half-dead soldiers, and bury them alive. They are generally very rapacious, and think they have a right to indemnify themselves for their severe losses. The editor himself was once in such hazard, and was saved only by an extraordinary circumstance.—Several games have been invented, to explain the manner of conducting war and battles, in which the effect of cannon, &c., is represented by dice; pieces of lead, differently colored, represent the different troops. One of the most ingenious contrivances of this kind was invented by Mr. von Reisswitz, of Berlin.

CONTENTS OF VOL. I.

ENCYCLOPÆDIA AMERICANA.

A	Page 1	Acarnania	26	A libitum	42
Aa (River)	2	Acatholici	"	Adagio	"
Aachen	"	Acbar	"	Adalbert	"
Aargau	"	Acceleration	"	———— (Abp. of Bremen)	43
Aaron	"	Accent	"	———— (of Prague)	"
Aaron, or Harun al Raschid	"	Acceptance	27	Adam	"
Abacus	"	Accessary	"	———— (sculptors)	44
Abatis	"	Acclamation	28	Adamant	"
Abauzit	"	Accolade	"	Adamantine Spar	"
Abbas	"	Accommodation	"	Adam Pomum	"
Abbé	"	Accompaniment	"	Adamites	"
Abbés Commandataires	3	Accord (in music)	29	Adams (John)	"
Abbey	"	———— (in law)	"	———— (Samuel)	52
Abbot (Abp. of Canterbury)	"	Accouchement	"	Adam's Apple	53
Abbot (Charles)	"	Accum	"	———— Peak	54
Abbot	4	Accumulation	29	Adamson	"
Abbreviations	5	Accusation	"	Adanson	"
Abbreviatori	6	Aceldama	30	Addington	55
Abbt	"	Acephali	"	Addison	"
Abdera	7	Acerbi	"	Address	57
Abdication	"	Acerra	"	Adelm	"
Abdomen	"	Acetic Acid	"	Adelung (John Christopher)	"
Abel	"	Achæans	"	———— (Frederic von)	58
Abelard	"	Achæus	"	Adept	"
Abelites	9	Achaia	"	Adersbach Mountains	"
Abensberg	"	Achard	31	Ades	"
Abercromby	"	Achates	"	Adhelm	"
Aberdeen	"	Acheen	"	Adhesion	"
———— Earl of	10	Achelous	"	Adiaphora	59
Aberli	"	Achenwall	"	Adipocire	"
Aberration of light	"	Acheron	"	Adjutant	"
Abildgaard	"	Achilleis	32	Adjutant-general	"
Abiponians	11	Acherusia	"	Admetus	"
Abjuration	"	Achilles	"	Administrator	"
Ablegati	"	———— Tatiüs	33	Admiral	"
Abo	"	Achmet III.	"	Admiralty Courts	60
———— peace of	"	Achmim	"	———— Islands	61
Abolition	12	Achromatic Telescopes	"	Adolphus of Nassau	"
———— of slavery	"	Acids	"	Adonal	"
Aborigines	"	Acirs	34	Adonic	"
Aboukir	"	Ackermann	"	Adonis	"
Aboulfeda	13	Acolythi	"	Adoptiani	62
About	"	Aconita	35	Adoption	"
Abacadabra	"	Acoustics	"	Adoration	63
Abraham	14	Acres	38	Adraganth	64
———— a Sancta Clara	"	———— (St. Jean d')	"	Adrastea	"
———— heights of	"	Acridophagi	"	Adrastus	"
Abrahamites	"	Acrisius	"	Adrian (abbot)	"
Abrantes	15	Acroceranium	"	———— (Roman Emperor)	"
Abrasax	"	Acrocorinthus	"	———— (Popes)	65
Abraxas Stones	"	Acropolis	39	Adrianople	66
Abrial	"	Acrostic	"	Adrian's Wall	"
Abruzzo	16	Act (in law)	"	Adriatic Sea	"
Abalom	17	———— (in the universities)	40	Adule, Adulian Marble	67
Absentee	"	———— of Faith	"	Adultery	"
Absolution	18	Acta Eruditorum	"	Advent	68
Abstraction	"	———— Sanctorum	"	Adventure (bill of)	"
Abulfeda	"	Actæon	"	———— Island	69
Abydos	"	Action (in law)	"	Adventurers	"
Abyla	"	Actium	41	Advocate of the Crown	"
Abyssinia	"	Acton	"	Advocates	73
Acacia	20	Actors	"	Advocate's Library	74
Academy	"	Actresses	"	Adowson	"
Acadia	25	Acts of the Apostles	42	Ady	"
Acanthus	"	Acuna	"	Adytum	"
Acapulco	"	Acupuncture	"	Æacus	"
		Acute	"	Ædiles	"

<i>Ægeon</i>	75	Age (of the world)	96	<i>Ajax</i>	123
<i>Ægean Sea</i>	"	— (of life)	"	<i>Akbah</i>	"
<i>Ægeus</i>	"	<i>Ageda</i>	"	<i>Akbar</i>	"
<i>Ægina</i>	"	<i>Agemoglans</i>	97	<i>Akenside</i>	"
<i>Æginetan Style and Monu-</i>		<i>Agenda</i>	"	<i>Akerblad</i>	124
<i>ments of Arts</i>	"	<i>Agésilas</i>	"	<i>Akerman</i>	"
<i>Æginhard</i>	76	<i>Aggregation</i>	"	<i>Alabama</i> (one of the U. S.)	125
<i>Ægis</i>	"	<i>Aghrim</i>	"	— (a river)	126
<i>Ægisthus</i>	"	<i>Agincourt</i>	"	— (tribe of Indians)	"
<i>Ælfric</i>	77	<i>Agio</i>	98	<i>Alabaster</i>	"
<i>Ælianus</i>	"	<i>Agis IV.</i>	"	<i>Alacranes</i>	"
<i>Æmilius</i>	"	<i>Agitators</i>	"	<i>Aladan</i>	"
<i>Æneas</i>	"	<i>Aglaia</i>	99	<i>Alamanni</i>	"
<i>Æneid</i>	"	<i>Aglar</i>	"	<i>A-la-mi-re</i>	127
<i>Ænesidemus</i>	"	<i>Agnano</i>	"	<i>Alan</i>	"
<i>Ænigma</i>	"	<i>Agnates</i>	"	<i>Aland</i>	"
<i>Æolian Harp</i>	78	<i>Agnes, St.</i>	"	<i>Alani</i>	"
<i>Æolians</i>	"	— (an island)	"	<i>Alaric</i>	"
<i>Æolipile</i>	"	— Sorel	"	<i>Alatamaha</i>	128
<i>Æolus</i>	"	<i>Agnesi</i>	"	<i>Alay</i>	"
<i>Æra</i>	"	<i>Agnoëta</i>	100	<i>Alba Longa</i>	"
<i>Ærial Perspective</i>	79	<i>Agnomen</i>	"	<i>Alban, St.</i>	129
<i>Ærians</i>	"	<i>Agnus Dei</i>	"	<i>Albani</i> (Roman family) ..	"
<i>Ærodynamics</i>	"	<i>Agows</i>	"	— (a painter)	"
<i>Ærolites</i>	"	<i>Agra</i>	"	<i>Albania</i>	"
<i>Æronautics</i>	"	<i>Agrarian laws</i>	"	<i>Albano</i>	130
<i>Ærostation</i>	81	<i>Agricola</i> (Roman consul)	103	<i>Albany</i> (countess of)	131
<i>Æschines</i> (orator)	"	— (John)	"	— (a city of N. Y.)	"
— (philosopher)	"	<i>Agricultural Chemistry</i> ..	"	— (of the cape of Good	"
<i>Æschylus</i>	"	<i>Agriculture</i>	"	<i>Hope</i>)	"
<i>Æsculapius</i>	82	<i>Agrirentum</i>	111	<i>Albatross</i>	"
<i>Æop</i>	"	<i>Agrionia</i>	112	<i>Albemarle Sound</i>	133
<i>Æopos</i>	83	<i>Agrippa</i>	"	<i>Alberoni</i>	"
<i>Æsthetics</i>	"	<i>Agrippina</i>	"	<i>Albert I.</i>	"
<i>Æther</i>	"	<i>Ague</i>	113	<i>Albert the Great</i>	134
— (in chemistry)	"	<i>Ague-cake</i>	"	<i>Albigenses</i>	135
<i>Æthiopia</i>	"	<i>Aguesseau</i>	"	<i>Albinos</i>	"
<i>Æthra</i>	"	<i>Aguirra</i>	114	<i>Albinus</i>	136
<i>Ætius</i>	"	<i>Agustini</i>	"	<i>Albion</i>	"
<i>Ætna</i>	"	<i>Aguti</i>	"	— New	"
<i>Ætolia</i>	84	<i>Agyniani</i>	"	<i>Alboin</i>	137
<i>Æffa</i>	"	<i>Ahanta</i>	"	<i>Alborak</i>	"
<i>Affinity</i> (in chemistry) ..	"	<i>Ahasuerus</i>	"	<i>Albufera</i>	"
— (in law)	85	<i>Ahitophel</i>	"	<i>Albuhera</i>	"
<i>Affirmation</i>	"	<i>A-hull</i>	"	<i>Album</i>	138
<i>Affry</i>	"	<i>Aid</i>	"	<i>Albumen</i>	"
<i>Afghanistan</i>	86	<i>Aid-major</i>	"	<i>Albuquerque</i>	"
<i>Afghans</i>	"	<i>Aignan</i>	"	<i>Albumnum</i>	139
<i>Afore</i>	"	<i>Aiguillon</i>	115	<i>Alcæus</i>	"
<i>Afrancesados</i>	"	<i>Ailsea</i>	"	<i>Alcala de Henarez</i>	"
<i>Afranius</i>	87	<i>Ainos</i>	"	<i>Alcalde</i>	"
<i>Africa</i>	"	<i>Ainsworth</i> (Henry)	"	<i>Alcali</i>	"
<i>African Association</i>	92	— (Robert)	"	<i>Alcamenes</i>	"
— Company	"	<i>Aiou</i>	"	<i>Alcantara</i>	"
— Institution	93	<i>Air</i> (in natural philosophy)	"	<i>Alcavala</i>	140
<i>Aft</i>	"	— (in painting)	117	<i>Alcea</i>	"
<i>Aga</i>	"	— (fixed)	"	<i>Alcedo</i>	"
<i>Agades</i>	"	— (in music)	"	<i>Alceste</i>	"
<i>Agalmatolite</i>	"	— Gun	118	<i>Alchemy</i>	"
<i>Agamemnon</i>	"	— Pipes	"	<i>Alcibiades</i>	141
<i>Agamic Plants</i>	"	— Pump	"	<i>Alcides</i>	143
<i>Aganippe</i>	"	— Trunk	119	<i>Alcinous</i>	"
<i>Agape</i>	"	<i>Aiséé</i>	120	<i>Alciphron</i>	"
<i>Agar</i>	94	<i>Aix</i>	"	<i>Alcmæon</i>	"
— (count of Mosbourg) ..	"	<i>Aix la Chapelle</i>	"	<i>Alcman</i>	144
<i>Agaric</i>	"	— (congressat	121	<i>Alcmæna</i>	"
<i>Agate</i>	"	— (treaties of	"	<i>Alcohol</i>	"
<i>Agatho</i>	"	— peace)	122	<i>Alcoran</i>	145
<i>Agathocles</i>	95	<i>Ajaccio</i>	"	<i>Alcudia</i>	"
<i>Agathodæmon</i>	"	<i>Ajalon</i>	123	<i>Alcuinus</i>	"
<i>Agave</i>	"	<i>Ajan</i>	"	<i>Aldebaran</i>	"
<i>Age</i> (in law)	"	<i>Ajassaluck</i>	"	<i>Aldegonde</i>	"

Aldenhoven	145	All in the Wind	177	Alum (artificial)	198
Alder	146	All Saints' Bay	"	— (native)	199
Alderman	"	— (feast of)	"	— Slate	"
Aldhelm	"	All Souls	"	— Stone	"
Alderney	"	Aliment	"	Alumine	"
Aldine Editions	147	Alla Breve	179	Alva	200
Aldini	"	Allah	"	Amadeists	201
Aldobrandini	148	Allan	"	Amadeus (counts of Savoy)	"
Aldred	"	Allay	"	Amadis	"
Aldus	"	Alleghany or Appalachian	"	Amalgam	202
Ale	"	Mountains	"	Amalia	"
Alecto	"	— (a river)	"	Amalthæa	"
A-lee	"	Allegiance	"	Amaranth	203
Alegambe	"	Allegory	180	Amathus	"
Alemanni	"	Allegri	181	Amati	"
Alembert	149	Allegro	"	Amazon	"
Alençon	150	Alleluia	"	Amazons	"
Alenio	"	Allemand	"	Ambassador	204
Aleppo	"	Allen	"	Amber	"
Alcia	151	Alley	183	Amberg	"
Alessandria	"	Allgemeine Zeitung	"	Amberger	"
Aleutian Islands	"	Alliance	"	Ambergreis	"
Alexander the Great	"	— (Holy)	"	Amboy	205
— Balas	154	Alligation	"	Ambras	"
— Jannæus	"	Alligator	"	Ambrosia	"
— Severus	155	Alliteration	185	Ambrose, St.	"
— (popes)	"	Allix	"	Ambrosian Library	206
— VI.	156	Allodium	186	Amen	"
— Newskoi	157	Alloy	"	Amende honorable	"
— (kings of Scot-	"	Allspice	"	Amendment	207
land)	"	Allum	187	America	"
— I. (emperor)	"	Alluvion	"	— (geology of)	209
— (William)	162	Alma	"	American Company	210
Alexandria (Lower Egypt)	"	Almagest	"	Americanism	"
— (Piedmont)	163	Almagro	188	Americus Vesputius	211
— (Columbia)	"	Almamon	"	Ames (Fisher)	212
Alexandrian Copy	"	Almanac	"	— (Joseph)	213
— School	164	— (Nautical)	189	Amethyst	"
Alexandrine	165	Alme	"	Amherst (in Mass.)	"
Alexians	"	Almeida	"	— (Lord)	"
Alexis-Bath	"	— (fortress)	190	Amiantus	214
— Comnenus	"	Almene	"	Amidships	"
— Petrovitch	"	Almohedes	"	Amiens	"
Alfieri	166	Almoner	"	— (peace of)	"
Alfred the Great	167	Almond	"	Amilcar	"
Algæ	"	Alnus	191	Amiot	"
Algardi	"	Aloadin	"	Ammianus	215
Algarotti	168	Aloes	"	Ammirato	"
Algebra	"	Aloe	192	Ammon	"
Algiers	170	Aloides	"	Ammonia	"
Algoa	"	Alpha and Omega	"	— (nitrate of)	216
Algonquins	"	Alphabet	"	— (sulphate of)	"
Alguazil	"	Alpheus	193	Ammonius	"
Alhama	"	Alphonso III.	"	Ammunition Bread, &c.	"
Alhamra	"	— X.	"	Amnesty	"
Ali	171	Alps	194	Amor	217
— (pacha)	"	— (roads over)	195	Amoretti	"
Alias	173	— (the Suabian)	196	Amortization	218
Alibi	"	Alpuxaras	"	Amos	"
Alicant	"	Alsace	"	Ampellites	"
Aliconda	"	Al Segno	197	Amphiarus	"
Aliens	"	Al-Sirat	"	Amphibia	"
Alimony	175	Alsop	"	Amphibology	"
Aliquant Part	176	Alt	"	Amphibrachys	"
Aliquot Part	"	Altai Mountains	"	Amphictyons (court of the)	"
Alkali	"	Altar	"	Amphimacer	"
Alkanet	"	Altenburg	"	Amphion	"
Alkmaar	"	Alter Ego	"	Amphisbæna	"
Alkohol	"	Altitude	190	Amphitheatre	219
Alkoran	"	Alto	"	Amphitrite	"
All-fours	"	Altona	"	Amphitryon	"
All Hands Hoay	177	Alttranstadt	"	Amplification	"

Amplitude	219	Androides	242	Ansgar	256
Ampulla	"	Andromache	"	Anson	25
Amputation	220	Andromeda	"	Anspach	267
Amretsir	"	Andronicus of Cyresthes	"	Anstey	"
Amsterdam	"	Rhodes	"	Ant	"
(island of the	"	Andros	"	Eater	269
South Pacific	"	Androscoggin	243	Anteus	270
Ocean	222	Anello	"	Antagonist Muscles	"
(island in the	"	Anemometer	"	Antanacclasis	"
North Sea)	223	Anemone	"	Antar	"
(island in the	"	Anesmoscope	"	Antarctic Circle	"
South Sea)	"	Aneurism	"	Antediluvian	"
Island	"	Anfossi	"	Antelope	"
(New)	"	Angel	244	Antenati	271
Amuck	"	(a gold coin)	"	Antennæ	"
Amulet	"	Angelo Buonarroti	"	Antenor	"
Amusette	"	Angeloni	246	Anteros	"
Amygdalus	"	Angerstein	"	Anthem	272
Amyot	"	Gallery	"	Anthing	"
Ana	"	Angle	"	Anthology	"
Ana Santa	224	Angles	247	Anthony, St. (the Great)	"
Anabaptists	"	Anglesea	"	(a cape)	273
Anacharsis the Younger	228	(marquis of)	"	(falls of)	"
Anachorets	"	Angling	"	(island of)	"
Anacetus	229	Anglo-Saxon History	248	of Padua, St.	"
Anacoulthion	"	Angola	250	Anthracite	"
Anacreon	"	Angostura	"	Anthropolites	274
Anadyomene	230	Angoulême	251	Anthropology	"
Anagnosta	"	(duke of)	"	Anthropomorphites	"
Anagogy	"	(duchess of)	252	Anthropophagi	"
Anagram	"	Angora	"	Antibacchius	"
Analecta	"	Angra	"	Antibes	"
Analogy	231	Anguilla	"	Anticaglia	275
Analysis	"	Anguinum Ovum	253	Antichrist	"
Anamorphosis	232	Anhalt	"	Anticyra	"
Anapæst	"	Anhydrite	"	Antigone	"
Ananas	"	Anich	"	Antigonus	"
Anaphora	"	Anichini	"	Antigua	276
Anastasius I.	"	Anima Mundi	254	Antilegomena	277
Anathema	"	Animal, Animal Life	"	Antilles	"
Anatomical Preparations	233	Heat	257	Antilochus	"
Anatomy	"	Magnetism	258	Antimachus	"
of Plants	234	Matter	"	Antimony	"
Anatron	235	Animalcule	"	Antinomianism	278
Anaxagoras	"	Anime	259	Antinous	"
Anaximander	"	Anise-seeds	"	Antioch	"
Anaximenes	"	Anjou	"	Antiochus	279
Anbert Kend	236	Ankerström	"	Antiope	"
Ancestors	"	Anlace	"	Antiparos	"
Anchises	"	Anna Ivanowna	"	Antipaschia	"
Anchor	"	Annaberg	260	Antipater	"
Anchoret	237	Annals	"	Antipathy	"
Anchovy	"	Annamabõe	"	Antiphlogistic Chemistry	280
Anchylosis	238	Annamooka	"	Antiphony	"
Ancillon	"	Annapolis	"	Antiphrasis	"
Ancona	"	Annates	"	Antipodes	"
Ancus Martius	239	Anne (queen)	"	Antipope	"
Anda	"	of Austria	261	Antiquaries	281
Andalusia	"	Cleves	"	Antique	"
Andante	"	Annealing	"	Antiquity	282
Andes	"	Annius of Viterbo	262	Antisabbatarians	283
Andover	240	Anno	"	Antiseptics	"
(in Mass.)	"	Annuities	"	Anti-Slavery Society	"
André	241	Annunciation	264	Antispasmodic	"
Andrea del Sarto	"	Day	"	Antisthenes	"
Andreossy	"	Anodynes	"	Antisyphilitic	"
Andrew, St.	"	Anointing	"	Antithesis	284
's St.	"	Anomaly	"	Antitrinitarians	"
(cross of)	"	Anomœans	"	Antium	"
Andrews	"	Anonymous	"	Antoinette	"
Andrieux	242	Anquetil du Perron	265	Antonello of Messina	286
Androclus	"	Anselm	"	Antoninus	"

Antoninus Pius	287	Apurè	312	Archons	349
— (wall of)	"	Apurimac	"	Archytas of Tarentum	"
Antonio (Nicholas)	288	Aqua Fortis	"	Arckenholz	"
— St.	"	— Marina	"	Arçon	"
Antonius	"	— Regia	"	Arcona	"
Antony (Mark)	290	— Tinta	"	Arcot (district of Hindos- tan)	"
Antraigues	"	— Tofana	"	— (city of Hindostan)	350
Antwerp	"	Aquæduct	313	Arctic	"
Anubis	291	Aquamboe	"	Arcturus	"
Anville	"	Aquarians	"	Arctus	"
Aonian Mount	"	Aquarius	"	Arctuation	"
Aorta	"	Aquaviva	"	Ardèche	"
Apanage	"	Aqueduct	"	Ardennes	"
Ape	292	Aquila	314	Ardey	"
A-peak	293	Aquileia	"	Are	"
Apelles	"	Aquinas	"	Area	"
Apennines	294	Aquitania	315	Arelas	351
Aphelion	"	Arabella Stuart	"	Aremberg	"
Aphrodite	"	Arabesque	"	Arena	"
Apicius	"	Arabia	"	Arendt	"
Apis	"	Arabian Gulf	317	Arens	352
Apocalypse	295	Arabian Literature and Lan- guage	"	Areopagus	"
Apocryphal	"	Arabian Nights	320	Arequipa	"
Apogee	296	— Sea	322	Ares	"
Apollinarians	"	Arabici	"	Areskoui	"
Apollo	"	Arac	"	Arethusa	"
Apollodorus	297	Aracatscha	"	Aretin	"
— of Athens	"	Arachne	323	Aretino (Guido)	353
Apollonikon	"	Arachnology	"	— (Leonard)	"
Apollonius of Perga	"	Arack	"	— (Pietro)	"
Apologetics	298	Arafat	"	Arezzo	354
Apologue	299	Arago	"	Argal	"
Apology	"	Aragon (a poetess)	324	Argali	"
Apono	"	— (kingdom of)	"	Argand Lamp	355
Apophthegm	"	Aral	"	Argens, marquis d'	"
Apoplexy	"	Aram	"	Argenson, marquis d'	"
Apotasy	301	Aranda	"	Argent	356
A posteriori	"	Aranjuez	"	Argenteus, Codex	"
Apostles	"	Ararat	325	Argentiera	"
Apostolic Islands	302	— or Pilot Mountain	"	Argiphontes	"
Apostolical	"	Aratus (Greek poet)	"	Argives	"
Apostolics	"	— of Sicyon	"	Argo	"
Apostool	303	Araucanians	326	Argolis	"
Apostrophe	"	Arbela	"	Argonauts	357
Apothecary	"	Arbiter	"	Argonne	359
Apothecosis	"	Arbitration	327	Argos	"
Appalachian Mountains	304	Arbuthnot	"	Arguelles	"
Appalachicola	"	Arc, Jeanne d'	328	Arguim	"
Appanage	"	Arcadia	"	Argumentum ad Hominem	"
Apparent	"	Arcadians, Academy of the	"	Argus	"
Appeal (in law)	"	Arcanum	329	Argyle	"
— (wager of battle)	305	Arce	"	— Rooms	360
Appellants	306	Arcesilaus	"	Aria	"
Appenzel	"	Arch (in building)	"	Ariadne	"
Appian of Alexandria	"	— (in grammar)	"	Arianna	"
— Way	"	Archaism	"	Arians	"
Appiani	"	Archangel	"	Arica	361
Appius Claudius Crassinus	"	Archbishop	330	Aries	"
Applause	308	Archdeacon	331	Arietta	"
Apple	"	Archelaus	"	Arimanes	"
Appoggiato	"	Archenholz	"	Arimaspian	"
Appoggiatura	309	Archery	"	Arion	"
Apprenticeship	"	Archess Court	332	Arioso	"
Approaches	310	Archil	"	Ariosti	"
Approximation	"	Archilochus	"	Ariosto	362
Apricot	"	Archimandrite	"	Arisemendi	"
April	"	Archimedes	"	Aristæus	363
A priori	311	Archipelago	333	Aristarchus	"
Apron	"	Architecture	"	Aristides	"
Apsides	"	— (history of)	344	Aristippus	364
Apuleius	"	Archives	348	Aristocracy	"
Apulia	"				

Aristogiton	364	Arta	402	Assault (in law)	422
Aristomenes	365	Artaxerxes	"	— (mil)	423
Aristophanes	"	Artemidorus	"	Assay-Balance	"
Aristotle	"	Artemis	"	Assaying	"
Arithmetic	367	Artemisia	"	Asselyn	"
Arius	"	Artemisium	403	Assemanni	"
Ark	"	Artemon	"	Assembly, General	424
Arkansas	368	Artery	"	Assent, the Royal	"
Arkebuss	"	Arthritis	"	Assets	"
Arkwright	"	Arthur	"	Assiento	"
Armada	369	Arthur's Seat	"	Assignat	"
Armado	"	Artichoke	"	Assignment	425
Armagh	370	Article of Faith	404	Assiniboin	"
Armatolic	"	Artigas	"	Assiniboins	"
Armed Ship	371	Artillery	405	Assises	"
Armenia	"	Artois	"	Assisi	"
Armenian Literature	372	Artotyrites	"	Assizes	"
Armfelt	374	Arts	"	Assonance	428
Armiger	"	Arundelian Marbles	406	Assonant Rhymes	"
Arminians	"	Arons	"	Assumpsit	"
Arminius	375	Arusini Campi	"	Assumption (city)	429
— or Hermann	378	Aruspices	"	— (festival)	"
Armor (coat of)	"	As	"	Assurance	"
Armorica	"	Asafetida	407	Assyria	"
Arms	"	Asaph, St.	"	Astarte	"
— (coat of)	379	Asben	"	Asteria	"
Armstrong	"	Asbestos	"	Asterisk	"
Army	380	Ascanius	408	Asthma	"
— (standing)	382	Ascendants	"	Astley (John)	"
Arnaouts	383	Ascending	"	— (Philip)	"
Arnatto	384	Ascension (an island)	"	Astrachan	"
Arnaud	"	— (in astronomy)	"	Astragnosy	430
Arnauld	"	— Day	"	Astrolabe	"
Arnauld	"	Ascetics	409	Astrology	"
Arnault	385	Aschaffenburg	"	Astronomy	431
Arnd	386	Ascham	"	— (history of)	434
Arndt	"	Asclepiadean Verse	"	Asturia	438
Arne	"	Asclepiades	410	Astyages	"
Arno	387	Aselli	"	Asuncion	"
Arnobius the Elder	"	Asen	"	Asylum	"
Arnold of Brescia	388	Ashmole	"	Asymptote	439
— (Benedict)	"	Ashantee	411	Asyndeton	"
— (Christopher)	397	Ashes	"	Atahualpa	"
— (John)	"	Ash-Tree	411	Atalanta	"
— (Samuel)	398	Ash-Wednesday	"	Ataman	"
Arnoldists	"	Asia	412	Ate	"
Arnoult	"	Asia Minor	415	Atellanæ Fabulæ	440
Aroba	"	Asiatic Societies and Mu- seums	"	A Tempo	"
Arpino	"	Asioli	416	Athaliah	"
Arracan	399	Aslan	"	Athamas	"
Arragon	"	Asmannshausen	"	Athanasius, St.	"
Arraign, Arraignment	"	Asmodai	"	Athapescow	441
Arran	"	Asopus	"	Atheism	442
— Islands	"	Asp	"	Athelstan	"
Arras	"	Asparagus	418	Athens	"
Arrest	"	Aspasin	"	— (in Geo.)	446
Athidæus	"	Aspect	419	— (in Ohio)	"
Arris	400	Aspen	"	Athletæ	"
Arrian	"	Asper	"	Athos	447
Arrighi	"	Aspern and Esslingen	"	Athwart	"
Arroba	"	Asphaltites	420	Athwart-Hawse	"
Arrowroot	"	Asphaltum	"	Atlantica	"
Arrowsmith	401	Asphyxia	"	Atlantic Ocean	"
Arsechin	"	Aspinwall	"	Atlantides	448
Arsenic	"	Aspirate	"	Atlantis	"
Arshin	"	Asrael	"	Atlas	"
Arsinoë	"	Ass	"	Atmosphere	"
— (name of coun- tries)	402	Assalini	422	Atoms	450
Arsis	402	Assam	"		
Arson	"	Assas	"		
Art	"	Assassins	422		

CONTENTS.

vi

Arcio	450	Auriga	475	Baal-Zebub	506
Atebrates.	"	Aurora	"	Baan	"
Atreus	"	— Australia	"	Babel-Mandeb	"
Atrides	451	— Borealis	"	Baber	"
Atrip	"	Ausonius	476	Babeuf	"
Atrophy	"	Auspices	"	Babington	"
Atropos	"	Austerlitz	"	Baboon	"
Attacca.	"	Austin, St.	478	Babour	507
Attachment	"	Austral Ocean	"	Babrias,	"
Foreign	452	Australia	"	Babylonia	"
Attack	453	Austria	481	Baccalaureus	508
Attainder	"	Autenrieth	496	Bacchanalia	"
Attaint	"	Auteuil	"	Bacchias	"
Atterbom	454	Authentic	"	Bacchus	"
Atterbury	"	Auto da Fé	"	Bacchylides	510
Attic Base	455	Autochthones	"	Baccio della Porta	"
Attica	"	Autocrator	"	Bacciocchi	"
Atticus (Herodes)	457	Autodidacti	497	Bach	511
(a Roman)	"	Autographs	"	Bacharach	"
Attila	"	Automaton	"	Bachaumont	"
Attiret	458	Autopsy	"	Bachelor	512
Attitude	459	Autumn	"	Back	"
Attorney	"	Auvergne	499	Backgammon	"
Attraction	"	Auvernas	"	Backereel	"
Attribute	460	Ava	"	Backhuysen	"
Atwood	"	Ava-Ava	"	Bacon (Anthony)	"
Atys	"	Avadontas	"	(Francis)	513
Aubaine (Droit d')	"	Aval	"	(Nathaniel)	514
Aube	461	Avanches	"	(Roger)	516
Auber	"	Avanturine	499	Bactriana	517
Aubert-Dubayet	"	Avant-la-Lettre	"	Badajoz	"
Aubigne	"	Avares	"	Baden (grand duchy)	"
Aubrey	"	Avatar	"	(cities)	519
Aubry de Montdidier	"	Avellino	"	(peace of)	"
Aurnum	"	Ave-Maria	"	Baden-Baden	"
Auckland	462	Aventine	"	Badens	520
Auction	"	Avenzoar	500	Badger	"
Aude	463	Average	"	Badia	521
Audebert	"	Avernus	"	Baert	"
Audience	"	Averroes	501	Baffin's Bay	522
Auditor	"	Avesnes	"	Bagdad	"
(in Geo.)	"	Aveyron	"	Baggesen	523
Auerbach	464	Avicenna	"	Bagnio	"
Auerstødt	"	Avienus	"	Bagpipe	"
Augean Codex	"	Avignon	"	Bahamas	"
Auegas	"	Avoirdupois	502	Bahama	524
Auger	"	Avon	"	Bahr	"
Augereau	465	Award	"	(weights)	"
Augias	"	A-weight	"	Bahia	"
Auguste	"	Axel	"	Bahrdr	"
Augsburg	466	Axim	"	Baiadeer	525
Confession	"	Axinite	"	Baim	"
Gazette	"	Axiom	"	Baikal	"
Augurs	"	Axis	503	Bail	"
August	467	Axum	"	Bailiff	526
Augusta	"	Ayacucho, Battle of	"	Baillet	527
(in Maine)	"	Aycinena	"	Baily	"
(in Geo.)	"	Ayesha	"	Bailment	528
Augustin, St.	468	Azimuth of a star	"	Bairam	"
Augustine, St.	"	Azincourt	504	Bairdstown	"
(city in East Florida)	469	Azoga Ships	"	Baios	"
Augustulus	"	Azoph	"	Bajazet I.	529
Augustus	"	Azores	"	Bakhuyesen	"
II.	471	Azote	"	Bakker	"
III.	473	Azyme	"	Balaklaika	"
Aulic	"	Azymites	"	Balance of Power	"
Aulis	474	Azzara	"	Balance of Trade	"
Aunoy	"			Balancing	530
Aurelian	"	B.		Balbec	"
Aureng-Zebe	"	E.	505	Balba	"
Aureus	475	Baal	"	Balkan	"
Auricular Confession	"	Baalbek	506	Balde	"

Baldwin III.	531	Barbarino.	561	Bartholomew's Day	592
Bale	"	Barbarossa (emperor)	"	Bartlett	593
—, Council of	"	— (Aruch)	"	Bartolozzi	"
Baleares	"	— (Hayradin)	"	Barton (Benjamin S.)	594
Balen	"	Barbary States	"	— (Elizabeth)	"
Bales	"	Barbault	567	Bartram (John)	595
Balassan	532	Barbazan	"	— (William)	"
Balestra	"	Barberies	"	Barytes	"
Bahol	"	Barbette	"	Basalt	596
Balistæ	"	Barbeyrac	"	Bascule System	"
Balize	"	Barbié-du-Bocage	568	Base (in architecture)	"
Balk	"	Barbier	"	— (in tactics)	"
Balkan	"	Barbieri	"	Basedow	597
Ball	"	Barbou	"	Bashaw	598
Ballad	533	Barbour	"	Bashee Islands	"
Ballast	534	Barbuda	569	Bashkirs	"
Ballet	"	Barca	"	Basil, St.	"
Ballhorn	535	Barcarolla	"	— (town of)	"
Ballistæ	"	Barcelona	"	Basilica	"
Balloon	"	Barclay (Alex.)	570	Basilides	"
Ballston-Spa	"	— (John)	"	Basilisk	"
Balm of Gilead	"	— (Robert)	"	Baskerville	599
Baloochistan	"	Bard	571	Basle	"
Balsam	"	Bardeanes	572	— (treaties of peace at)	"
Baltic Sea	"	Barefooted Friars	"	— (council of)	600
Baltimore	536	Baretti	"	Basques	602
— Bird	537	Barezzi	573	Bass	"
Balzac	538	Barfleur	"	Bass-Relief	603
Bambarra	"	Bargain and Sale	"	Bass's Straits	"
Bamberg	"	Barilla	"	Bassa	"
Bamboo Cane	"	Baring	574	Bassan	"
Bambouk	"	Bariton	"	Bassano	"
Ban (in law)	539	Barjapoor	"	— (duke of)	"
— (Bannus)	"	Bark, Peruvian	"	Basset	"
Banana	"	Barker	575	Basset-Horn	"
Banca	"	Barley	"	Bassompierre	604
Banda Islands	"	Barlow	"	Bassoon	"
— Oriental	540	Barmen	579	Bassora	"
Bandello	541	Barnabites	"	Basso Relievo	605
Bande Noire	"	Barnacle	"	Bass-Viol	"
Bandettini	"	Barnave	"	Bastard	"
Bandit	542	Barneveldt	580	Bastia	606
Baner	"	Barney	"	Bastile	"
Bangor	"	Baroccio	582	Bastinado	"
Bangue	543	Barometer	"	Bastion	"
Banians	"	Baron	583	Bat	607
Banishment	"	— (Michael)	584	Batalha	608
Bank	"	— and Feme	"	Batavia	"
Bankrupt	550	Baronets	"	Batavian Republic	"
Bankruptcy, national	554	Baronius	"	Batavians	609
Banks (Sir Joseph)	"	Barquisimeto	"	Bath (city)	"
— (Thomas)	555	Barra	585	— (in Maine)	609
Bann	"	Barras	"	Bath	"
Bannec	"	Barrator	"	—, Knights of the	611
Banner	"	Barratry	"	Bathos	"
Bannockburn	"	Barrère	586	Bathurst (Allen, earl)	"
Banquette	"	Barricade	"	— (Henry, earl)	"
Banquo	"	Barrier Treaty	"	— (in Africa)	612
Bans of Matrimony	"	Barrington	587	Bathyllus	"
Baobab	556	Barrister	"	Batiste	"
Baour-Lormian	"	Barros	"	Batman	"
Baphomet	"	Barrow	"	Baton Rouge	"
Baptism	557	Barrows	589	Batoni	"
— of Blood	558	Barry (James T.)	"	Batrachomyomachia	"
Baptists	559	— (John)	"	Batta	"
Bar	"	— (countess du)	590	Battalion	613
Barataria	560	Barthelemy	"	Battering Ram	"
Barb	"	Barthel	591	Battery	"
Barbadoes	"	Bartholomew	"	Batteux	614
Barbarelli	"	—'s Hospital	592	Battle	"
Barbarian	"	—, St.	"		





